A HINDU VIEW OF CULTURE

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ESSAYS AND ADDRESSES

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Mysore Civil Service

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DEDICATED

WITH HUMILITY AND LOVE

TO

HIS HOLINESS

ŚRIMAD ĀNANDĀŚRAMA SWĀMIJI

OF ŚRI CHITRĀPUR MAṬHA

THE LIVING EMBODIMENT OF THE

SACRED WISDOM OF

INDIA

PREFACE TO THE FIRST EDITION

THIS little volume brings together some of the addresses which the author had occasion to deliver to University students as indicated in the footnotes, and two other essays. *The Foundations of Hindu Culture* was delivered before the Sanskrit Association of the Central College, Bangalore. The paper *Has India at present any 'Philosophy' as such of her own?* has been included because, although apparently controversial in form, it deals with the question of the applicability of the scientific method to philosophy which is integrally connected with the subject-matter of other papers included in this series, *e.g.*, *The Growth of Science*, and *Philosophy and Living*.

The addresses were delivered from notes and have now been adapted for publication. But they still bear the mark of the spoken word and of the type of audience to which they were directed, and some repetition and overlapping of ideas has been found unavoidable. The response which the author got from his hearers encouraged him to believe that they might be of interest to others also, a belief in which he has been supported by kind friends who read the manuscript. It is hoped that they present a certain unity of outlook regarding the essentials of Hindu Culture, which the author has tried to bring into relation with modern thought. In doing so he has not kept apart the religious, philosophical and

practical standpoints. He is convinced that such separation, however useful for comparative study, is sterile for cultural ends. No excuse is therefore offered for the manner of presentation even though it runs the risk of being dubbed medieval. Nor is any claim made for originality, for the author is only too conscious of his indebtedness. The idea underlying the book is that culture conceived as *purushārtha* demands for its fulfilment a combination of the contemplative and active principles in experience, which are fruitful only in union like *Śiva* and *Śakti*. The limitations of a one-sided approach like science have been stressed and a plea put forward for a sympathetic and reverent appreciation in general of the old Hindu ideals. If the author should succeed in giving at least a few young people a fresh orientation towards these objectives he will feel amply rewarded.

MYSORE, K. G. D.
1st January 1943

PREFACE TO THE SECOND EDITION

As the limited First Edition was soon exhausted, it has been found necessary to bring out a second within a month. Advantage has been taken of this opportunity to correct misprints and to improve the transliteration of Sanskrit words by the use of diacritical marks to some extent, although not fully to satisfy the demands of meticulous scholarship. It may also be mentioned that the articles *Sri Ramakrishna and the Divine Mother*, and *The Foundations of Hindu Culture* had appeared in the " *Vedānta Kesari* " and the *Concept of Sakti in the Veda* in the " *Triveni* ".

MYSORE, K. G. D.
16th February 1943

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THE GENIUS OF THE SANSKRIT LANGUAGE*

A STUDY IN MYTHOLOGY

It would appear as if the spirit of Indian culture clothed itself in an appropriate form, and that form was the Sanskrit language. The body of the language perhaps came from outside of India as in the Rigveda. But it was so fashioned after its advent as to become the natural vehicle of the spirit of India, of her art and her culture : in fact of all her Saṁskāras. It became Saṁskrita. The relation between the spirit and the vehicle is like that between Śiva and Śakti—an *avinābhāva sambandha*. This Śakti is principally to be apprehended as the genius of the Sanskrit language. The mode of approach in what follows will be through the field of mythology and not that of linguistics. Before the genius or Śakti will unfold herself she has to be propitiated. Let us start with praise : Sanskrit is the mother of all our languages, the repository of our culture and the treasure-house of our cherished dreams and visions. Like the stream of the holy Ganges rising in the snow-capped peaks of the Himalayas and flowing through vast and fertile plains on to the sea, the stream of this Sanskrit whose remote source we have not the temerity to explore, flows past our homesteads and fields sustaining and purifying our workaday life and leading us

* Inaugural Address delivered before the Sanskrit Association of the Maharaja's College, Mysore, in 1936.

without haste, and almost unknowingly to the very shore of the Infinite. Even those who have lived on the banks of other streams, in the evening of their lives resort to the banks of this sacred river which is replete with the veritable waters of life. When all other streams dry up, this alone, fed by the melting snows, overflows its banks, self-sufficient and perennial.

How did this stream first come down to us? We are told that Bhagiratha made her descend from heaven after untold efforts and that she purified several generations of his ancestors. Is this a symbol of the Herculean efforts we have to make in order to master this language, and how when once we have succeeded, the recompense exceeds our fondest hopes? I believe it may be. We will pursue our simile. When Gangā descended from heaven, we are told that she came down with such force that nothing could withstand her impetuous torrent. Then the mighty Śiva received it in the coils of his matted hair, and allowed only a chastened and manageable stream to flow down to this earth. Can it be that this mighty torrent was the Vedic Sanskrit which was received by the spirit of India, and converted into the clear and pellucid stream of the classical language? Who was this Śiva who sobered and restrained the rude energy of the Vedic language? Many interesting conjectures have been made in this connection. Some Western scholars have told us Śiva is a Dravidian god who was adopted into the Āryan or Vedic pantheon. Nowadays we are not so sure about Āryan

and Dravidian, nor are we prepared to accept the naive chronology according to which bands of Āryans filtered down into India across the mountain ramparts about 2000 years B.C. The discovery of the Indus valley civilisation in the excavations at Harappa and Mohenjo Daro has very considerably put back the hands of the clock. But even in this ancient civilisation, there is ground to believe that the worship of Śiva was the most popular of cults. So whether Dravidian or not, the cult was peculiarly Indian whereas the Vedic cult, as we can make out from the affinities with the Avestan religion and language, as well as from other evidence, had its sources outside of India. Rudra, who is now identified with Śiva, was in the Rigveda, a comparatively minor god. Out of 1,028 hymns in the Rigveda, only three entire hymns are addressed to him. On the other hand, when we come to the Yajurveda we find that Rudra has already come into his own and occupies a pre-eminent position. He has become Mahādeva. We have there the famous litany known as the Rudrādhyāya or Śatarudriya, the most well-known of all Vedic passages. Its sacredness was recognised long ago and it was even elevated to the position of an Upanishad. We have also other Upanishads referring to it. Thus we see in the Kaivalya Upanishad: *Yaḥ śatarudriyam adhite so-gniputo bhavati*, etc. In the *Śvetāśvatara* which is one of the major Upanishads, we find for the first time that the Supreme Person is identified with Rudra. It is significant that this Upanishad forms part of the oldest

section of the Yajurveda, *viz.*, the Krishna Yajurveda. Now there can be no doubt that the Yajurveda is a purely Indian growth and adaptation. So we may safely venture to assert that the Indian soil was congenial to the development of the minor Rudra of the Rigveda into the Supreme Rudra of the Yajurveda, who is no other than the Śiva of later mythology.

This position of pre-eminence does not seem to have been won without a struggle. There is the famous myth of the destruction of Daksha's Yajna by Śiva. The word Daksha is very significant. It means: able, competent, expert, clever, skilful, fit, eligible, careful, attentive, prompt, honest and upright. In mythology we see that Daksha has been described as the embodiment of all these qualities so anxiously sought after by the Vedic worshippers. This is all very good. How then did any enmity come about between this Daksha and his own son-in-law Rudra? This very question is asked by Vidura of Maitreya in the Bhāgavata. In order to understand the answer we have to examine the nature of Rudra. Macdonell writing about the Rigvedic gods, says: "They are benevolent beings who bestow prosperity on mankind, the only one in whom injurious traits appear being Rudra." This Rudra was feared and misunderstood. He was first kept apart and ultimately ignored. That was the seed of the catastrophe. There was a certain terrible divinity in man, apparently inimical to the well-fed and prosperous daily life, yet potent with the promise of the highest good ; and man's temptation was to

banish this from his endeavours, and worship exclusively those obvious good qualities symbolised in Daksha. So, all the gods were invited to Daksha's Yajna except Rudra. Then came the reaction, and with a vengeance.

In the myth, Rudra is described as the ascetic or Yogin *par excellence.* He scorned the delights which men ordinarily hanker after. That is really the crux of Daksha's complaint against him: that he is not worldly minded—*Sadbhir ācaritaḥ panthā yena stabdhena dūshitaḥ.* "This misguided person has the hardihood to condemn the course approved by the best among us." So Daksha cursed him, saying that Rudra should go without his share of worship. He was not invited to Daksha's sacrifice. Rudra's spouse Sati went there uninvited, was treated with contumely and she immolated herself in the sacrificial fire.

Before doing so, she addressed reproaches to her father, the purport of which is somewhat as follows:—The path of Dharma comprises both Pravritti and Nivritti. In your arrogance you think that only the former is Vaidik and not the latter. As a protest, I give up this body of mine born from you, so that I may manifest again with a body worthy of Śiva, who is the very embodiment of Nivritti. Then as Kālidāsa puts it:—"The chaste Sati, the daughter of Daksha and the former wife of Bhava, who driven by the insult offered by her father to her lord had abandoned her body by means of Yoga, resorted to the mountain's consort (Mena) for rebirth." It

would appear as if this Sati who was one of the younger daughters, in fact the sixteenth daughter of Daksha, voluntarily abandoned her former body and was born again in a form wholly dedicated to Śiva, is no other than the Vedic language transforming itself into Sanskrit.

I do not suggest that the content of this ancient myth is exhausted by this interpretation. I also wish to add that throughout what follows I am using the word Śiva without any sectarian significance. On the other hand, the phenomenon of the destruction of Daksha's Yajna by Śiva has many parallels in and out of India. Thus it would appear as if the Avestan reaction against the Vedic gods in ancient Iran, and the Buddhist protest in India against the sacrificial and ritualistic excesses of Vedic worshippers were both variations of the same *motif*. The triumph of early Christianity too, with its ideals of renunciation and self-sacrifice, over the sensual orgies of the religions of Greece and Rome, was no other than the victory of Śiva over Daksha. In our own day, do not the life and teachings of Gandhi point in the same direction?

We have referred to Śiva's spouse or Śakti and suggested that she is no other than the genius of the Sanskrit language. Very appropriately she has been depicted as *Mātrikā varṇa rūpiṇī*. It is said that each letter of the Sanskrit alphabet has a Śakti of its own. The Śakti which represents the language itself is composite of these several Śaktis. This Ādi Śakti has been worshipped in India under two distinct

aspects: Durgā and Lalitā. These again appear to be personifications of the Vedic and classical languages. In the Rigveda we have a hymn beginning *Aham Rudrebhir.* It is throughout in the first person and is said to be the *Ātma stuti* or self praise of Vāk, or Vedic speech. She is both the Rishi and deity of the hymn. The very first mantra is a sample of its contents:—" I proceed with the Rudras, with the Vasus, with the Ādityas, and with the Viśvedevas ; I support both Mitra and Varuṇa, Agni and Indra and the two Aśvins." There can be no doubt here that it is the Vedic language that is thus apostrophised. Now this hymn has been called the Devī Sūkta and used in the ritual worship of Durgā. Thus Durgā and the Vedic Vāk are, as it were, one and the same.

In a later Vedic mantra she is described as " *Tām agnivarṇām tapasā jvalantim*, etc." as of the colour of fire and blazing with Tapas. In the Purāṇas, she figures very largely under the name of Durgā, as well as Caṇdikā and a host of others. A whole Purāṇa known as the Devī Bhāgavata is dedicated to her. Among smaller passages, may be mentioned the famous episode in the Mārkandeya Purāṇa known as the Caṇdī-pāṭha or Durgā Saptaśati, which is as important an ingredient in the worship of Durgā as the Śatarudriya is in the worship of Śiva. In this Saptaśati she is described as the compounded essence of the energy of all the gods, fierce yet propitious. She is still unwedded: Kumāri or virgin. She has not found her mate or master as yet. This

is what she proclaimed to the Asuras who aspired for her hand:

Yo mām jayati sangrāme, yo me darpam vyapohati,
Yo me pratibalo loke, sa me bhartā bhaviṣyati.

" He who conquers me in battle, he who humbles my pride, he verily who is my equal in all respects, he alone will be my husband." We see here the same combativeness and energy and pride which we noticed in the Vedic Devī Sūkta, as being characteristics of the Vedic language.

But when we come to Lalitā we find that things are changed. Lalitā means easy, gracious. These are indeed the marks of the classical Bhāshā. Lest it be said that I am importing here an unorthodox meaning I may state that this significance was well-known to the seers and users of the symbol. Thus there is the Lalitā Sahasranāma, so greatly prized by devotees all over India. The Rishis or seers of this are appropriately said to be the Vāgdevatās; and the Bīja or mystic seed is the Vāgbhava kūṭa. That speech or language was one of the principal aspects to be kept in mind is therefore obvious. Again in the body of the Sahasranāma we come across the epithets Bhāshārūpā and Vāgvādini. But what kind of Vāk? She is described as Komalākārā—tender of form. The old fierceness has disappeared. It cannot be a mere accident that throughout the thousand epithets of the Sahasranāma there is no mention of Tapas. On the other hand she is called in one place: *tāpatrayāgnisantaptā samāhlādanacandrikā.*

"She is like the cool healing rays of the moon to those who have been burnt up by the fire of the three kinds of Tāpa" which means heat as well as affliction. In the place of Tapas we find numerous references to Yoga. Thus she is dubbed Yoginī, Yogadā, Yogānandā, etc. The names link her to Śiva also. Thus we find her described as Śivā, Śiva-jnāna-pradāyinī and Śivapriyā which are almost parallel to the three already cited, as if the connection with Yoga and Śiva are synonymous. The untamed Kumāri has already found her mate and master. The untempered force of Tapas has become the balanced energy of Yoga. She who at first was a comparative stranger to Śiva has become his bride and his beloved: the Vedic language has mellowed and ripened into the Sanskrit Bhāshā. In this connection I would point out that these two forms of Śakti have a special interest for us in Mysore. Before our very eyes we have the formidable Cāmundī, and easy and graceful Lalitādri: visible symbols of their attributes. I would also respectfully refer to our beloved Maharaja who is a devout worshipper of Devi, and perhaps on this very account the greatest patron of Sanskrit culture in all India.

It may perhaps be objected that language has been presented to us in mythology as Sarasvati and not under these two particular forms described by me. But then, myths are not mutually exclusive. Like our own private and individual dreams these myths are the dreams of the race—mind, in which the entities merge and interpenetrate

in a most surprising fashion. The physical law that no two things can occupy the same place at the same time, does not hold sway in the world of dreams. Thus we are told in the Upanishad that it is a somewhat different Self that experiences dream. This Self has been designated Taijasa whereas the Self of the waking life has been named Vaiśvānara, which latter perhaps means "man in the visible universe". It is said that each has seven limbs and nineteen faces but while the Vaiśvānara is outward conscious and experiences the gross physical world, the other is inward conscious and experiences the subtle world: *antahprajna* and *pravivikta bhuk*. The latter is really of a higher order than the former (*utkarshād, ubhayatvād*), because although the gross world is not present in the dream life, the dream state is present during wakefulness, otherwise all our visions and highest aspirations and imaginations would lose their value and significance. I would say that it is the Taijasa self that created all these prolific myths, it is to this Self that they are appropriately addressed and it is this Self alone that can understand them. Much of the misunderstanding and contempt that has been showered over the myths of the Purāṇas, interpreting them literally as having reference to the hard world of our waking life, could have been spared if they had been treated as having validity and value only in their own special sphere. Alas, we have not had that patience. But it is never too late to mend and the disease has not advanced so far as to be considered incurable.

Let us go back to Sarasvati. She has been called Vāṇi or speech or sound, and in mythology is depicted as the spouse of Brahmā. Brahmā with his four faces is accepted as the very embodiment of the four Vedas. His four faces face the four directions, the cardinal points of the compass. We read in the Purāṇa that once Brahmā had five faces, the fifth facing upward. Owing to a curse he lost the fifth face. I think this has very much to do with the curious fact that there is no official worship of Brahmā through the length and breadth of India. Except at Mount Abu there is no temple to Brahmā anywhere. Why is this? Perhaps one reason is that Brahmā looks only in the four worldly directions but not in the upward (spiritual) direction. He had the upward aspect once but lost it, and with it lost his claim to be worshipped. Now mythology says that Śiva has five faces. This would indicate as if the ideal of the Supreme Person at one time came to be imaged exclusively with reference to worldly things, including of course what was meant by Svarga, and the better sense of the nation had to abandon it, as being neither whole nor wholesome. In fact, the complete ideal with five faces which was once the object of worship as Brahmā, had metamorphosed itself into our old friend Daksha; and his supremacy had to be destroyed by Śiva, who for the purpose of that story was the fifth face personified. With the dethronement of Brahmā, Sarasvati has shared his fortunes. It is not that Sarasvati is not worshipped in India today. She is, but only as a manifestation

of Devi. Thus she is worshipped on the sixth day during the Navarātri festival dedicated to Devi. It would appear therefore as if Speech was once sacred and catered to the complete needs of man. Then it became the exclusive handmaid of the worldly-minded and lost its place, but subsequently managed to secure a relatively subordinate position in the pantheon.

Sarasvati would again stand for any language, whereas we may claim with pardonable pride that Devi alone stands for Sanskrit. Daksha had numerous daughters. To vary our symbol, these daughters may be the various sister languages of the Indo-Āryan group. Among them, Sanskrit was that Sati who chose Śiva for her lord. This is indeed so in the spirit. Evidences need not be multiplied, but reference may be made to a suggestive instance. Kālidāsa is admittedly the greatest poet whom India has produced. We are told that, to start with, he was an ignoramus. He became an ardent devotee of Devi, whom he adored under the form of Kāli, and by her grace became a great poet. Why should this be interpreted crudely, and the young poet imagined as a rude rustic rubbing the skin off his finger tips while grinding sandal paste in the dark shrine of the goddess? Can it not rather mean that out of his great devotion to the Sanskrit language imaged as Devi, he acquired his poetic mastery? This actually appears to have been the case. For, apart from his well-recognised works a number of highly devotional Stotras to Devi are attributed to Kālidāsa. These undoubtedly look as if they are addressed to the

personified image of the genius or Śakti of the Sanskrit language, for example, the Śyāmalā Daṇḍaka.

The name Śyāmalā means dark and is more or less identical with Kāli or black, as commonly understood. These epithets suggest the answer to another objection which might be raised against our present mode of approach, *viz.*, that Sanskrit contains atheistical writings also, *e.g.*, Brihaspati and the Cārvākas. How then could it be said that the genius of Sanskrit is devoted to Śiva alone? It contains much that is Aśiva. The answer is that Śiva himself comprises much that is Aśiva. Thus we have the invocation:—" O Rudra, we bow to all forms of yours: those which are mild as well as those which are terrible and even deadly." Very naturally his Śakti has corresponding aspects, but in none of them does she cease to be Śiva-Śakti, not even when as Kāli she is depicted as dancing on the body of Śiva himself. This image which is in the nature of a paradox has been much misunderstood. Its true significance could perhaps be discovered only through worship and meditation.

We may now consider an aspect of our subject which we just touched upon when speaking of Durgā and Lalitā. What was the process by which the metamorphosis was accomplished? Tapas and Yoga appear to have been the principal ingredients in this process. Tapas we have seen was an attribute of Durgā while yet a Kumāri, whereas Yoga has already taken its place when we come to Lalitā. Even in the process, the two steps are characteristic of the features

of the Vedic and classical languages. Up to a certain point indeed they appear to be synonymous: Tapas is prior and leads up to Yoga. Thus we read in the commentary on the Yoga Sūtra: " For him who is without Tapas, Yoga does not fructify. In the absence of Tapas, the impurity consisting of the network of sense-objects confronting us, variegated by the impressions left by beginningless Karma and affliction cannot be dissolved."

Let us go back to the Rigveda—to its oldest portion, *viz.*, the Samhitā proper. Neither the word Tapas nor the word Yoga in the sense in which we understand them are to be found there. It is in the Āraṇyakas that we first come across the word Tapas. We may take it that their writers felt that they had had enough of the sense life, and fled from it into the seclusion of the forest, to practise austerities and in solitude commune with their own selves. But much experimenting had to be done before the certainties of the Upanishads were arrived at. The results are described in symbolical language. Prajāpati, the embodiment of the Veda, is said to have performed Tapas. Even in the Upanishads, the word Yoga does not appear in the earliest ones. Barring casual references, we come across it full-fledged in the Śvetāśvatara to which we have already had occasion to refer on account of its connection with the Krishna Yajurveda and the worship of Rudra as the Supreme Being. The opening verses of this Upanishad might well form a preamble to all the Upanishads. They place before us the eager spirit

of enquiry which permeated those seekers. "The enquirers after Brahman converse among themselves: What cause is Brahman? Whence are we produced? By whom do we live, and where do we ultimately abide? By whom governed, do we walk after a rule in happiness and unhappiness, O ye knowers of Brahma? Is time (Kāla) Brahma, or (Svabhāva) the own nature of things, or the necessary consequences of action (Karma), or accident, or the elements, or nature or the soul?" The answer follows: "Through Dhyāna and Yoga they beheld the Divine Śakti concealed by its own qualities, which alone superintends all those causes, of which Time was the first and Soul the last." The details as to how this Yoga is to be practised are given in the second chapter of this Upanishad and the results are described thus: "The body becomes light and healthy, the mind becomes free from excess of passion; purity of complexion, clarity of sound and freedom from dross are attained." That is the nature of the metamorphosis, of the acquisition of a new body through Yoga.

These however are the very qualities which classical Sanskrit acquired as compared with the older language. We find this same lightness and sanity; Laghutvam and Ārogyam, the same freedom from excesses of passion: Alolupatva, Varṇaprasāda and Svarasoushṭava. These last two epithets are so expressive as to be untranslatable. These qualities were doubtless acquired through Yoga alone, and not otherwise. This was India's own contribution.

This was the process and this the added significance. By way of concrete illustration, may be mentioned a few linguistic peculiarities. The acquired lightness is obvious. The development has been a process of renunciation: accent is given up, several inflexional forms are given up, as well as tenses and moods and forms of participles and gerunds and infinitives. Thus as a marked feature it is observed that out of a dozen kinds of infinitives in the Vedic language, only one survives in Sanskrit. Another feature too deserves special notice. It is the comparatively rare use of the finite verb (frequent enough in the Vedic language) for which past participles or verbal nouns are very often substituted. There is also a marked fondness for passive constructions. These tendencies grew with age and have indeed been adopted as tests of age in linguistic criticism. They are very characteristic and appear to be the visible or rather audible indication that India had outgrown the adolescent craze for incessant action and had developed a wise and subdued passivity. However this might be viewed in the West, there is no doubt that according to Indian standards it was a step in the right direction. Thus we have it in the Bhagavad Gītā: "For the aspirant after Yoga, action alone is the means. But when the same aspirant is established in Yoga, then Śama or passivity alone is amply adequate." Classical Sanskrit has acquired this Śama, as compared with the turbulent energy of the Vedic language.

Let us see wherein Tapas differs from Yoga. Tapas in its very nature partakes of strenuous activity

whereas Yoga is more of equilibrium or balance. Activity like the flow of water, demands and presupposes a difference of potential. On the other hand, equilibrium indicates balance: the water has found its level. The former is Vaishamya of the qualities, whereas the latter is Sāmya or Samatva, words identified with Yoga in the Gītā. The word Yukta so often used in the Gīta means fit and suitable and harmonius. Thus we have:

> *Yuktāhāra vihārasya yukta ceshṭasya karmasu,*
> *Yukta svapnāvabodhasya yogo bhavati duhkhahā.*

" For him who is moderate in diet and in play as well as in work, in sleep as well as in wakefulness, Yoga destroys all pain." In Tapas there may be the possibility of over-doing things, but not in Yoga. This is not a view peculiar to the Gītā, but is well-recognised in the Yoga Śāstra also. Thus we find in the Yoga Bhāshya that if Tapas is to be conducive to Yoga, it must be such as will lead to the soothing of the mind : *tacca cittaprasādanam abūdhamānenā sevyam.* Vācaspati Miśra in his *Tattva Vaiśāradi* explains this as follows:—*tāvanmātrameva tapaścaraṇīyam, na yāvata dhātuvaishamyam āpadyate.* " That much of Tapas only is to be performed as will not cause disturbance of the Dhātus or subtle constituents of our system." Yoga therefore is that repose or balance of energy supervening on a judicious and well-chosen course of moderate activity. It is the plenitude of equilibrium known as Samādhi.

This equilibrium is to be found in the structure as well as substance of the Sanskrit language, and more of it is to be seen in the classical than in the Vedic language. Any one reading the essays of Ananda Kumarasvami or other writers on Indian Art will be struck by their insistence on the connection between Indian Art and Yoga. At first it appears like an over-statement, but careful consideration will reveal the fundamental validity of the idea. Art is not to be understood merely as meaning the plastic arts or music: these are only ancillary. Life itself—the living of it, is the art of arts. The highest Indian experience of life is permeated through and through by Yoga. Tapas is unbalanced and inartistic. Yoga is balanced and is therefore the highest form of art. But experience is Sūkshma and its visible or rather perceptible symbol is language: the Sanskrit language is the greatest work of art left to us by our ancestors. All the artistic Saṁskāras of the race have been condensed into it. It is for this reason assuredly that it has been named Saṁskrita.

The connection between language and Yogic experience is not a mere fanciful assumption, but a deep-seated realisation. It is not for nothing that legend has it that the great Patanjali who is said to be the incarnation of Ādi Śesha was at once the expounder of Yoga as well as of Grammar: of the Yogānuśāsana and Śabdānuśāsana. Language is undoubtedly the sound-counterpart of experience. With India's characteristic fondness for placing the Sūkshma or subtle before the Sthūla or gross, we

refer to gross objects themselves as Padārtha; as if the Pada or word came first, and the object was merely the thing signified by the word. Again, the word audibly uttered is itself gross. Behind it, it is said there are three further degrees of subtleness: Madhyamā, Paśyanti and Parā. This Parā Vāk is also referred to as Vidyā and is the very image of Brahman. This is the Ādi Vidyā or what is identical with it, Ādi Śakti. It is this Śakti who is symbolised as in eternal communion with Śiva: they are the parents of the Universe. The relation between them has been described as *avinābhāva sambandha*, like the connection between word and meaning. It is they who are praised by Kālidāsa at the commencement of *Raghuvaṁśa*.

Vāgarthāviva sampriktau vāgartha pratipattaye,
Jagataḥ pitarau vande Pārvatī Parameśvarau.

It has not been possible to keep them separate in the course of this presentation. It may be that I have attributed to Śiva the characteristics of Śakti or *vice versa*. It is not my fault but their Svabhāva. Let us who are aspirants after *vāgartha pratipatti* offer salutation to them. And again let us bow especially to this Ādi Vidyā who has been called *Śiva-Śaktyaikya rūpiṇī* and whom I have tried to depict as the genius of the Sanskrit language. Let us meditate on Her who is all Caitanya (vitality, consciousness and intelligence), so that She may give us vision:

Sarva caitanya rūpām tām ādyām vidyām ca
dhīmahi, buddhim yā naḥ pracodayāt!

SRI RAMAKRISHNA AND THE DIVINE MOTHER*

A QUAINT belief popular in India holds that when a man of outstanding virtue passes away he becomes a star in the sky. Thus it is said that Dhruva by steadfastness in devotion became the Pole Star. Round him revolve the Sapta Rishis, the Great Bear. If we put away the crude and literal meaning of this, we at once observe that it is over our mental horizon that these stars rise and set, and it is in our inner firmament that they shine. The saints and sages of all times are there as the fixed stars. Many of them are mere specks of light to us. But that is no indication of their size or power ; for astronomers tell us that some of the stars that appear dimmest to us are many thousands of times bigger than the Sun. Yet the Sun is the nearest fixed star to us and he counts for us far more than all the fixed stars in the heavens. Such appears to me the position of Bhagavan Sri Ramakrishna in our mental astronomy. Assuredly he has risen before our eyes as the spiritual Sun when the light of the distant stars had become dim and had almost ceased to illumine us. I will complete the comparison by adding that this Sun brought in his wake the Moon, shining, no doubt, with light borrowed from his Master, but so agreeable and stimulating and above

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all so much nearer to us. I refer of course to Vivekananda. Lest it be thought that I am not doing justice to the dynamic personality of the great Swami Vivekananda by comparing him to so pale and cold a luminary as the Moon, I would remind you that the Moon is no other than Soma of the Rigveda which is referred to as *Yajnaśriyam nrimādanam*—the grace of the sacrifice, the exhilarator of mankind—in fact that heady beverage which gave Indra his matchless strength. I would also remind you of the lines in the Bhagavad Gītā where Soma, imaged as Rasa or the essence of vitality, is said to be sustaining the food-giving plants. Shall we say that Swami Vivekananda resuscitated with life-giving juice, the drooping plants of spirituality in the world ?

My concern here is more with Sri Ramakrishna. The extent of the power which this name wields today over the minds of men is the most remarkable phenomenon of a century. India has not been lacking in saints. Yet it has not fallen to their lot to make that universal and potent appeal which is the distinction of Sri Ramakrishna. What is the secret of this? It appears to me to lie in the peculiar conception of deity which he cherished and with which he attained identity. Sri Ramakrishna worshipped this dynamic and moving world, Jagat, as the Divine Mother. Such was his absorption that he actually used to hold conversation with the Divine Mother. He has said, "I say to my Mother, 'Mother, I am the tool, Thou art the hand ; I do

what Thou biddest me say.'" He has said " When I sit at the feet of the Divine Mother, I feel intoxicated as if I have drunk five bottles of wine." Whenever the idea of the body or the finite ego would creep in, he would say, " Here (*i.e.*, within him) there are two persons. One is the Divine Mother, the other is Her worshipper. It is the second person who once broke his arm. It is also the second person who is now ill. Do you understand this?" To lose sight of this would be to misunderstand Sri Ramakrishna *in toto*.

We shall now proceed to examine briefly the concept of the Divine Mother which was so dear to him, and also try to clear some misconceptions. The Divine Mother is conceived as Śakti or Caitanya. Śakti means power, efficiency or efficacy in its broadest sense. That is the sense in which the whole world impresses us to start with. It is with us all the time. All fervour and all endeavour is Śakti and comes from the same source which is ultimately divine. She is Sat (existence), She is Asat (non-existence), She is everything. But two distinct tendencies are noticeable as working in the world—that which tends towards external appearances and leads to bondage and that which turns towards the inner reality and leads to freedom. The former is called Āsurī Śakti and the latter Daivī Śakti. Their qualities have been defined in the Gītā, *Daivī sampad vimokshāya nibandhāyāsuri matā*, the one tending to liberation and the other to bondage. Although bondage and freedom both proceed from this single

Śakti, still the Divine Mother is conceived as 'appearing' only when she starts the forces of release, the Daivic forces. Thus it has been said, "Though eternal, she is said to be 'originated' when she manifests herself for a 'divine purpose'." Differentiating the actions of those devoted to the Āsurī or deluding aspect of Nature (Prakriti), Sri Krishna has said that they embark on a multiplicity of futile hopes, futile actions, and evolve therefrom a futile knowledge and thus drain their vitality dry under the force of delusion (Gītā). On the other hand the Mahatmas are described as devoted to the Daivī Prakriti (divine aspect of Nature) and to be worshipping Her with singleness of mind (*Ibid.*). Sri Ramakrishna Paramahamsa was such a Mahatma, in fact one of the greatest among them.

It would not be out of place to point out here that Asuras should not be conceived as irreligious men. We are told that Rāvaṇa was a great Yogi. He as well as Hiraṇyakaśipu, and practically every one of the Asuras, attained their greatness through Tapas. Tapas and Yoga are thus only the means. The main problem is, what is the objective? To which god is the oblation offered? That was the question which India asked millenniums ago : *Kasmai devāya havishā vidhema*? The alternative is mainly : is it offered to the Daivī Prakriti or the Āsurī Prakriti? Alas! under the influence of the prevailing tendencies we are likely to lose sight of this vital issue. The weight of great names presses down on us. Thus, true to the Western outlook, Romain Rolland himself

in his *Life of Sri Ramakrishna* writes as follows: "There are many souls who believe they are free from all religious belief, but who live immersed in a state of super-rational consciousness, which they term Socialism, Communism, Humanitarianism, Vitalism or even Rationalism. *It is the quality of the thought and not its object*, which determines its source and allows us to decide whether or not it emanates from religion." Sri Ramakrishna would have emphatically repudiated such a statement because, put in brief, it merely amounts to this : "So long as you worship, it matters little what you worship." On the other hand, Sri Ramakrishna would rather have us use our discrimination, differentiate the divine (Daiva) from the diabolic (Āsura), and follow the Daiva at all costs. Even under Daiva he would ask us fearlessly to discard all shams masquerading under that name, and stick to the inner reality alone. That is his distinction.

The effect of the efflux of time (Kāla) is such that all energy runs down, and concepts, however vital at one time, soon cease to be such. The appearance remains but the efficacy departs. In fact the appearance itself becomes the greatest obstacle in the way of efficacy. It becomes a mass of dead tradition. To take an illustration, only the empty name of God remains, but in actual life we find as if He is powerless. We call on His name in vain, and think He is an empty shadow. We come to speak of him decorously but for all practical purposes put Him on the shelf. He ceases to be a motive

force in our life. In symbolical language, it means that Śakti has, as it were, departed from Śiva. Without Śakti, Śiva is inert, as is said in the *Soundarya Lahari*. Then Dharma decays and Adharma prevails. At such times the Lord himself assumes a body and comes down into the world of men. What for? For tending righteousness and extinguishing vice. To suck and withdraw the energy or Śakti from misconceptions, and to re-deposit it in the Sādhu or right conceptions, and to revitalise them. Symbolically it is to collect the dissipated Śakti and put her back in Śiva. That was the task for which Sri Ramakrishna came down in this Kali Yuga. Nobly he started it and is still accomplishing it; for such men do not die. If his frail mortal frame is no longer visible to our physical eyes, the Śakti or Divine Mother, the very secret of his power, is there, radiant and compelling.

This concept of Śakti is indeed no new one. It has been revered in India through the ages. The national festival of India, the Dasara, is dedicated to Her. She was, I am sure, worshipped by the dark aboriginal tribes of India and was perhaps called Kāli or dark on that account. She was worshipped by the white-complexioned Āryans who perhaps preferred to call her Gouri or white like themselves. The white and the black are equally Her dear children. She is present in the Veda behind the numerous gods, like the power behind the throne, in the dim half-perceived figure of Aditi, the mother of the gods, of whom it is said, "Aditi is

heaven ; Aditi is the firmament ; Aditi is mother, father and son ; Aditi is all the gods ; Aditi is the five classes of men ; Aditi is generation and birth." This Aditi is no minor deity. The very name stands for 'liberation', 'freedom', 'the absolute' and 'the infinite'. Her main characteristic has been described as the power of delivering from the bonds of physical suffering as well as from guilt. She is frequently invoked in the Veda as the Beyond, as what is beyond the earth and the sky, the sun and the dawn. In fact she is the most metaphysical of the Vedic deities. On this point, Max Muller was so impressed that he exclaims "this is a most surprising conception in that early period of religious thought." We may, however, say that there is no cause for surprise if we hold the Indian view that the gross is evolved out of the subtle, instead of the Western view that the subtle has been evolved out of the gross. I do not propose here to pursue further the other indications of the existence of the Śakti concept in the Veda. In fact it appears to me to be the warp and woof of the Veda.

Coming to the Upanishads which form the bedrock of our philosophy, we find the concept of Śakti very clearly brought out in the *Kena Upanishad*, which is one of the smallest of the Upanishads yet one of the oldest and most authoritative. There it is said that Brahma once won a great victory for the gods. By this victory the gods attained majesty and exulted among themselves. "Ours is this victory, ours the majesty," they said. Brahma

became aware of this delusion of theirs and appeared before them as a Yaksha—a spirit. They said to Agni "Jātaveda, do ascertain if this being is worthy of adoration." He replied, "Be it so," and ran up to Brahma. Brahma said "Who art thou?" He answered, "I am verily Agni. I am verily Jātaveda." Brahma asked him, "What is thy power?" Agni replied, "I can burn whatsoever there is on earth." Brahma placed a blade of grass before him and said, "Burn this". Approaching it with all his might, Agni could not burn it. He returned discomfited. Then Vāyu approached Brahma and boasted of his own prowess. Again Brahma put before him the blade of grass and asked Vāyu to move it; but Vāyu was unable to stir it. He too returned in shame. Then Indra himself approached Brahma, who disappeared. Indra remained there rapt in contemplation. After a time the divine Umā, daughter of Himavat, showed herself to him in the sky and told him that it was Brahma who had won the victory for the gods, and she disclosed the real nature of Brahma to Indra. The power that resided in Agni. Vāyu and the other gods was no other than the power of Brahma. Divested of this power, the gods were gods only in name and could not even move a blade of grass. Brahma could not thus be grasped even by the gods, but His grace or Śakti, appearing as Umā, revealed Herself, that is to say, the Svabhāva of Brahma revealed itself to Indra, after he had learnt proper humility.

In the several Purāṇas this Śakti or Devi has been described in various ways, sometimes as the consort of Śiva, sometimes as the Māyā of Vishṇu, or as Yoganidrā under whose influence the Supreme Person lies in deep slumber as it were, or again as Kāli the Terrible with her garland of skulls and bloody lolling tongue, dancing on the very body of Śiva. This last form has perhaps been the most misunderstood of all. Yet it was in that form that Sri Ramakrishna worshipped her. To the sophisticated, I am sure this will appear as a strange anomaly. They might perhaps like to argue it away as a remnant of superstitious obsession in a great mind, resulting from a crude upbringing. To do so would be wholly to lose sight of the very secret of the power of Sri Ramakrishna and Vivekananda. It would be like depriving a clock of its mainspring. The semblance of a clock would alone remain but it would not work. Adequately to expound this Kāli is beyond my powers. Symbols like this have their root deep in the subconscious mind of men, and our tiny rational fringe of consciousness, despite the magisterial airs it puts on, cannot fully appraise them. She will yield Her secret only to those who will worship Her. For the rest we may say that She is the profoundest image yet conceived by the mind of man of 'freedom from bondage'. She is the spirit of Śiva trampling the mere body or form of Śiva. The idea is that even that which was intended for the good of man, by efflux of time (Kāla) becomes a source of bondage when the spirit has

departed and only the traditional form remains. The spirit has its revenge by trampling over the inert form and asserting its own supremacy. At first sight this cannot but appear a terrible act of desecration. Hence the apparently ghastly form. When however the purpose is accomplished, and freedom from the bondage of dead tradition is achieved, then a great load is lifted from man's heart and he becomes like a little child. Such was the state of Sri Ramakrishna's mind. The terrible austerities he had passed through left no mark of *ahankāra* (egotism) in him. The spirit of those men who hug their austerities to heart and make it a source of pride is still under the bondage of a Kāli whom they have not the courage to conceive as trampling over traditional forms, after having drunk their blood, that is to say, sucked their essence. I do not want to dilate on this, nor can I say that the symbolism may not have a thousand other equally valid meanings, if not better. Suffice it to say that when the Divine Mother has revealed Her innermost nature to Her devotee, she no longer appears terrible but becomes the very embodiment of compassion and tenderness and beauty. As described in the Saptaśati, she becomes most benign and charming—*Soumyā soumyatarāśesha-soumyebhyastvati sundarī*.

I hope a charge will not be levelled against me that, starting with Sri Ramakrishna as my subject, I have strayed into the concept of the Divine Mother. My justification is that in the same sense as Jesus Christ said, " I and my Father in Heaven

are one," so, Sri Ramakrishna and the Divine Mother are assuredly one. She is the perennial source from which his teaching and that of Vivekananda flow like the holy Ganges descending from heaven. Such however is the secularising tendency of the present age that already there is a disposition to ignore the cause and hug the effect. I would emphatically say, take care of the cause and the effect will take care of itself. I do not want to minimise the value of the ethical and social side of the teaching of Sri Ramakrishna. But of late one is hearing too much about *Daridra-Nārāyaṇa* and next to nothing of *Śrīman-Nārāyaṇa*. The highest ethical values and ideals of social service can surely coexist with a thorough-going atheistic materialism like that of Marx and his followers. If one should persist in taking these alone as the essence of the teaching of Sri Ramakrishna, and relegate to oblivion that deep and ever-present reliance on, and surrender to, the will of the Supreme Person, otherwise known as the Divine Mother, it will be a foolish choice. Have both if you can. If not, if you are faced with an alternative, let yours be the choice which Arjuna made when he and Duryodhana went to Sri Krishna seeking his assistance on the eve of the Great War of the Mahābhārata. Sri Krishna offered them the choice between his armed paraphernalia on the one hand, and on the other, himself unarmed and non-combatant. Arjuna chose the person of the Lord while Duryodhana thought he was making a wise and practical choice by accepting the army. The result is well known.

That this was the view of Sri Ramakrishna, and is not something which I am reading into him, I will now show to you by a few brief extracts from his sayings.

"First install God in the temple of the heart; first realise Him. Speeches, lectures and the rest—these may be taken up after you have seen God—not before."

"If instead of preaching to others, one worships God all the time, that is preaching enough. He who strives to make himself free, is the real preacher. Hundreds come from all sides to him who is free, and are taught. When the flower opens, the bees come to it uninvited."

"You talk of social reform? Well, you may do so after realising God. Remember, the Rishis of old gave up the world in order to attain God. This is the one thing needful. All other things shall be added unto you, if indeed you care to have them. First see God, and then talk of lectures and reforms."

"One ray of light from my Divine Mother, who is the Goddess of Wisdom, has power to turn the most learned scholar into the veriest worm that crawls upon the earth."

To attain even a single ray of light from the Divine Mother, what did Sri Ramakrishna advise? The answer is: self-surrender, solitude and prayer and meditation. The words which Buddha applied to his own teaching may almost without change be applied to the teaching of Sri Ramakrishna: "Just as the great ocean has only the taste of salt, just so

has my doctrine and discipline only one flavour—the flavour of emancipation." Let this be lost sight of for a moment, and no matter what imposing array of popular activities you are taking shelter under, you will make the world look like a marriage pavilion where the pipers are playing and the guests have arrived and the feast is getting ready, but only the bridegroom has disappeared.

Now to conclude, Sri Ramakrishna went like a bee collecting honey, to every flower of religion in the world. Nay, he collected honey from everything that existed—*bhuteshu bhuteshu vicitya.* Unlike the bee, he drank deeply of the honey and passed on the nectar to the whole world, for his supply was endless. Such is the state of the supreme Rishis. It has been described as follows in the Muṇḍaka Upanishad: "The Rishis, having attained everything in the shape of their own Self, have become soaked in Jnāna, free from passion, and full of peace. These sages, having approached the omnipresent Supreme Being by every possible mode of access, have entered into the universe itself." Such is their nature, such the Śakti that dwells in these Paramahamsas. Where shall we find this Śakti? *Śriguruḥ sarva kāraṇa bhūtā śaktiḥ*: Take refuge in the feet of the Guru, and the Śakti will descend on you and you will be merged in bliss here and now, not elsewhere, not in a mere hereafter !

THE CONCEPT OF ŚAKTI IN THE VEDA

THE word Śakti means energy. Power or force is conceived as the active principle in the universe, and is personified as a goddess. From the primordial Śakti every other form of activity proceeds. Under many different names it is worshipped as Devi or the Mother. As Woodroffe says " God is worshipped as the Great Mother, because in this aspect God is active and produces, nourishes and maintains. But this is for worship. God is no more female than male or neuter. God is beyond sex......the Power or active aspect of God the immanent is called Śakti. In her static transcendent aspect the Mother, or Śakti, is Śiva or the Good. That is, philosophically speaking, Śiva is the unchanging Consciousness and Śakti is its unchanging Power appearing as mind and matter."

The concept of the Great Mother as such does not appear in the Rigveda. It is however ever-present as an underlying *motif* or base. The great active power, as it were, chooses to remain in the background and is diffused among the attributes of the gods, among which as Macdonell says " the most prominent is power". The gods " regulate the order of nature and vanquish the potent powers of evil. They hold sway over all creatures ; no one can thwart their ordinances or live beyond the time they appoint ; and the fulfilment of desires is dependent on them. They are benevolent beings who bestow

prosperity on mankind; the only one in whom injurious traits appear being Rudra. They are described as 'true' and 'not deceitful' being friends and protectors of the honest and righteous, but punishing sin and guilt." It is interesting to note that all these characteristics have been described together in a Sūkta of the Rigveda addressed to Vāk which later tradition has designated the Devī Sūkta, and which is used in connection with the *pārāyaṇa* of Saptaśati.

In a few hymns of the Rigveda which Western scholars classify among the later hymns, the deities Aditi and Prajapati are identified not only with all the gods but with nature as well. They partake of all the attributes characteristic of Devi. Aditi is an abstract deity whose shadow is over the whole Veda. With her rests the power of delivering from the bonds of physical suffering and moral guilt. She literally signifies liberation and freedom. Her antithesis Diti meaning bondage is mentioned as a goddess three times in the Rigveda. Even in the Rigveda, Aditi is spoken of as the mother of the group of deities called the Ādityas. It is entirely in keeping with the spirit of the Veda that the Purāṇas speak of Aditi and Diti as the wives of Kaśyapa from whom respectively were born the Devas and Asuras. Aditi and Diti would thus seem to stand for those groups of qualities which have been described in the Bhagavad Gītā as Daivī and Āsurī Sampat and summed up finely as follows: *Daivī sampad vimokshāya, nibhandāyāsuri matā*; the Daivī qualities lead to

liberation while the Āsurī qualities make for bondage.

Going back to the Rigveda, one of the very first references to Aditi runs as follows : *Aditir dyauraditir antarikshaṃ aditir mātā sa pitā sa putraḥ, Viśvedevā aditiḥ panca janā aditir jātam aditir janitvam.* " Aditi is heaven ; Aditi is the firmament ; Aditi is mother, father and son ; Aditi is all the gods ; Aditi is the five classes of men ; Aditi is generation and birth." Mystic and profound reference is made to Aditi in a well-known hymn of the Rigveda (X. 6. 4). The following is a sample : " Daksha was born from Aditi, and afterwards Aditi (again) from Daksha. Aditi, who was thy daughter, O Daksha, was born ; after her the gods were born adorable ; freed from the bonds of death." Commenting on the verse, Roth says : " Daksha, spiritual force, is the male power which generates the gods in eternity." The mutual derivation of the gods from each other is frequently described in the Vedas and in later mythology. For a proper appreciating of this, it is essential to bear in mind the explanation given in the Nirukta that all the gods have the same origin and derive their substance from one another (xi. 23). The scanty notices of Daksha which appear in the Rigveda have been greatly developed in the Purāṇas.

The other deity endowed with cosmic energy and qualities is Prajāpati. He is often identified with Daksha. Thus it is stated in *Śatapatha Brāhmaṇa* : " Prajāpati alone was all this universe in the beginning. He performed sacrifice. He himself

is named Daksha." He has also been identified with Viśvakarman, Hiraṇyagarbha, Brahmaṇaspati, etc. The celebrated Sūkta containing the refrain *Kasmai devāya havishā vidhema* is a fine example of a hymn addressed to Prajāpati. The refrain has often been translated as : "Let us offer worship with an oblation to the divine Ka." A better alternative would be : "To what God shall we offer oblation?"

Incidentally, reference may be made to some of the well-known cosmic hymns in the Rigveda. There is the famous Nāsadiya Sūkta. Among others of great interest are : the one addressed to Brahma Jnāna and the Sūkta beginning *asya vāmasya.* This last is a very remarkable hymn, the longest in the whole of the Rigveda. It is full of cryptic utterances which if comprehended would supply the key to much that is puzzling and obscure in the Vedas and Purāṇas. Thus a verse has it : "What is in reality female has been called male : he who has eyes beholds ; the blind seeth not...." Allusion may be seen in all these to the qualities of Devi.

The case of the Gāyatri is an illustration in point. Gāyatri is really the name of a Vedic metre of 24 syllables, but it is specially applied in ritual usage to a verse in that metre addressed to the male Vedic deity : Savitṛ. The verse itself (*Tat savitur vareṇyam bhargo devasya dhīmahi dhi yo yo naḥ pracodayāt*) preceded by *OM* and the three sacred syllables or Vyāhritis (*Bhūḥ*, *Bhuvaḥ* and *Suvaḥ*) is considered the most sacred in the whole Veda and is often referred to as the Mother of the Vedas. Yet tradition deems

it as addressed to the goddess Gāyatri who is described as having five faces and ten hands. She is considered to be the embodiment of the fivefold worship or Pancāyatana Pūja, the weapons she carries in her hands being symbolic of Gaṇapati, Vishṇu, Śiva, Śakti and Sūrya, the five great deities of Purāṇic worship. No foreigner nor even a Hindu without the proper traditional background would ever dream of singling out this casual verse addressed to a minor deity in Rigveda as the most sacred in all religious literature. Yet such is its importance when judged by criteria which are not visible to the eye, that the Devī Bhāgavata Purāṇa makes out the worship of Gāyatri as the most fundamental form of Devi worship and describes its Sahasranāma, Stōtras, etc., at great length. The Purāṇa itself begins with a verse which is only a classic paraphrase of the Vedic Gāyatri : *Sarva caitanya rūpām tām ādyām vidyām ca dhīmahi, buddhim yā naḥ pracodayāt.*

Another case in point is that of the sūkta commencing : *Jātavedase.* This happens to be the shortest hymn in the whole of the Rigveda, consisting of only one verse. It is addressed to Agni Jātavedas and may be translated as follows : "We offer oblations of Soma to Jātavedas ; may he consume the wealth of those who harbour enmity against us ; may he transport us over all difficulties : may Agni convey us as in a boat over a river, across all wickedness." Purāṇic tradition however considers this as the Vedic mantra of Durgā.

On the whole, goddesses do not play a very important part in the Rigveda. The most noteworthy is Ushas goddess of the dawn, the most poetically beautiful creation of the Rigvedic hymns :

> In the sky's framework she has shone with splendour ;
> The goddess has cast off the robe of darkness.
> Wakening up the world with ruddy horses.
> Upon her well-yoked chariot Dawn is coming.

Macdonell is of opinion that her charm is " unsurpassed in the descriptive lyrics of any other literature". Then come the Waters which are praised as goddesses in four hymns. Next comes Sarasvati who is celebrated in two whole hymns and in parts of others. As a specimen may be given the following three verses.

> " May Sarasvati the purifier, the bestower of food, the recompenser of worship with wealth, be attracted by our offered viands to our rite. Sarasvati the inspirer of those who delight in truth, the instructress of the right-minded, has accepted our sacrifice. Sarasvati makes manifest by her acts a mighty river, and (in her own form) enlightens all understandings."

Among other goddesses Vāk has already been referred to. Then come Rātri, Prithvi and a host of minor ones including the rather vague and shadowy wives of the gods. The hymn to Rātri needs special mention, as it is used as a subsidiary to the worship of Devi. In this connection, the following extract from a paper by Brij Lal Mukherji on the Vedas and Tantras will be of interest : " For purposes of attaining eternal bliss they worshipped Rātridevi who is

described as a girl growing into womanhood and who bestows happiness. She has long and flowing hair, has in her hand a noose. If she is pleased, then all other Devas are pleased. She being pleased offers boons, but the worshipper must reject the same and then he will gain freedom from rebirth. This is the worship of Rātri ; it requires no fasting and must be performed at night. The Mantra to be recited is the Rātri Sūkta which commences with *Rātri vyakhyad* to be followed by *Ārātri pārthivam rajas*. The Rig Vidhāna Brāhmaṇa which follows the Sāma Vidhāna Brāhmaṇa declares that the Rātri Sūkta must be recited and the worship must be performed as a Sthālipāka Yajna. Rātri is substantially the same as, but in form different from, Vāgdevi ; and they are sometimes worshipped as one and the same. The Rātri Sūkta describes her as black. The portion of the Rātri Sūkta which is included in the Khila portion of the Rigveda calls Rātri Devi by the name of Durgā and this Mantra appears in Taittirīya Āraṇyaka. The Brihad-devatā also mentions that Aditi, Vāk, Sarasvati and Durgā are the same." Combining various references like this, the author concludes : "We have the almost complete form of a Devi who is called at the present day by the name of Kāli." Such a conclusion is however open to the criticism that the various strata of the Veda are ignored and the identifications are often forced and unconvincing.

It is unnecessary however to have resort to forced explanations, because it is not the name and

particular form that are to be looked for, as is done by modern critical scholarship, but the substance. This substance or essence is undoubtedly in evidence throughout the Veda, and indeed forms its warp and woof. The position can best be summarised in the words of the Saptaśati which is a veritable gospel of Devi worship. It is said there : *Nityaiva sā jaganmūrtistayā sarvam idam tatam, Tathāpi tat samutpattir bahudhā śrūyatām mama* : "Although Devi is ever-present in the very form of the Universe which is pervaded and upheld by her, yet her specific appearances can be explained in a variety of ways." And again : *Devānām kārya siddhyartham āvirbhavati sā yadā, Utpanneti tadā loke sā nityāpi abhidīyate.* "Although she is eternal, she is spoken of as manifesting herself only when she does so on behalf of the gods." When the gods are in all their glory and receiving their due sacrifices there is no cause for the appearance of Devi. It is only when they are ousted from their proper sphere that she appears, forming for herself a body composed of the energies residing in the various gods. Her challenge to the hostile powers is *Trailokyam indro labhatām devāssantu havirbhujaḥ*. "Let Indra become supreme again in all the three lokas and let the Devas become recipients of their due Yajna-bhāga." When this object is accomplished Devi or Śakti disappears again. But how? It is said in the Saptaśati : *Tatraiva antaradhīyata*—She merges herself in the form and nature of the several gods. This is what has happened in the Rigveda.

THE FOUNDATIONS OF HINDU CULTURE

ALL of us have a working idea of what culture signifies. If, however, a definition is attempted, it is easier to say what it is not, rather than what it is. Of late, it has become usual to speak of culture and civilization as if they were synonymous. As an instance in point, may be cited a passage from Dr. Perry's book : *The Growth of Civilization.* This is how he commences one of his chapters : "The world is tenanted by people in various stages of culture. At one end of the scale are societies such as our own, with all the resources of civilization, with innumerable means of overcoming time and space, and of living a life of infinite complexity. At the other end of the scale are those that have made practically no progress in the arts and crafts, who still wander about seeking their food where they may get it." The idea is that culture is a thing which began with the flint axe, developed into the copper chisel and finally into the elaborate machinery of the present day. We read not about man's highest aspirations, of his yearning for God and for his fellow-man, but rather of his greed for tin and copper, for coal and iron, and for silver and gold and petroleum. It is the history of these great gods which is being presented as the history of civilization and of culture : of how from small and non-existent beginnings these gods have come to be the mighty beings they are today, how they have favoured their worshipper, man, and how both have gone on mutually

augmenting and profiting each other through the long ages—a strange parody of the interdependence of gods and men spoken of in the Bhagavad Gītā. The course of man's life on earth looks verily like a protracted sacrificial session—a Dīrghasatra—to these gods. To many in the modern age all the activities of man appear to be nothing more than oblations offered on the altar of civilization and the State. Thus an author exclaims : "The culture of the individual! What is that but the images and shadows of happenings in mighty States? The very words you utter are sparks smitten from the hard anvil of civilization, and there has been no civilization apart from the highly organised State." One is tempted to ask the age-old question of the Rigveda "To which god shall we offer oblation?"—*Kasmai devāya havishā vidhema*?

The traditional culture of India, however, is in marked contrast to this. It has been essentially individualistic. The embodied personality of man was the nucleus round which all other considerations ranged themselves. This embodied personality was called Purusha, meaning "he who resides in the city called the body : *puri śayah*". The body was described symbolically as the city with nine gates (*navadvāra*), the gates being the outlets of the senses. This Purusha has been the subject of culture, not the citizen in the political sense. The Purusha was considered potentially divine ; and the Supreme Person or Purushottama residing in the body was deemed the recipient of all Yajnas or sacrifices. In

the words of the Bhagavad Gītā: "That which underlies all the gods is Purusha, and I alone (*i.e.*, The Supreme Lord) am he who underlies all sacrifices here in this body." The culture of the individual consisted in realizing the goal or the fourfold objective of this Purusha, *i.e.*, Purushārtha. In this fourfold scheme of obligation, acquisition, enjoyment and final emancipation, Dharma or social and ethical obligation is given primacy in the interest of the individual himself, a portion of whose personality would be starved and stunted but for this. Besides Dharma, the other objectives too have their claims upon the attention of man. The individual is not considered as an oblation to an all-devouring Society or organised State in the political sense, to be sacrificed for the sake of the greater disembodied being. On the other hand, social obligation is placed on a par with man's other natural and individual aspirations, namely, with Artha or desire for wealth and domination, Kāma or craving for the enjoyment of the senses and Moksha or his deep-seated hankering for ultimate freedom from all bonds. All these four are often brought together under Dharma, a most comprehensive term in which all the strands of Indian culture have been woven together. In its essence, Dharma is that by which man is borne up : *Dhāryate anena* : *iti dharmaḥ*. It is that which supports and bears up man's personality for the full realization of the Purushārthas. On the contrary, anything which breaks up a man's personality and thwarts his realization of all the Purushārthas is

not Dharma. Dharma is not merely a social and ethical norm or standard, but is something intimate and personal : hence the doctrine of Svadharma or congenial Dharma which has been propounded in the Gītā.

Dharma considered as equivalent to the four Purushārthas has often been pictured in our mythology as a cow, a quadruped. Each of its limbs is as important as any other, and any mutilation would affect the body as a whole. That Age of man is true in which the cow moves about with all its limbs intact. It is called Satyayuga. It is not any historical age that is meant but rather the spiritual stage of the individual. Various stages of mutilation of the Dharma have been described in the Purāṇas, until the miserable cow has come to hobble along on only one leg. It does not matter what that leg is : be it Dharma itself in the restricted sense of morality, or Moksha in the sense of a perverted seeking of individual freedom at the cost of all else, or the seeking of Artha and Kāma by themselves divorced from their companions. It would appear as if for the large majority of people in the world today, Artha is the only Purushārtha. Economics and politics (Arthaśāstra) are the only sciences which matter. It is not the individual Purusha that counts, but some huge disembodied being like Society or the State, capable of greed and pride collectively, but impervious to weal and woe. Culture has come to be equated with civilization.

The grand means for the realisation of Purushārtha was called Yajna or sacrifice. With

the very different modes of thinking into which we have worked ourselves in the present day, it is difficult indeed for us to realize what Yajna meant to the ancient world. The conception was universal and not peculiar to India. It was developed by the Egyptians and the Babylonians no less than by the Chinese and the aboriginal inhabitants of the Americas. At a time when communications were so extremely difficult, this identity of conception appears nothing short of a miracle. Yet it is doubtful whether the full import of this miracle has been appreciated by the modern world. The chief cause for this lack of appreciation appears to be the want of respect and reverence for conceptions alien to their own, which characterises so-called civilised peoples of the present day, who are only too inclined to treat as primitive superstition whatever they do not understand. Yajna is not studied as if it were a reality but only as an exploded delusion. The basic and fundamental idea underlying Yajna is given in the Bhagavad Gītā: "From food come forth beings: from rain food is produced : *from Yajna arises rain* and Yajna is born of Karma. Know Karma to have arisen from the Veda, and the Veda from the Imperishable. Therefore the all-pervading Veda is ever centred in Yajna." In a general way many of us may not seriously object to that view. But if pressed hard we would find it difficult to accept literally the truth of the link—from Yajna arises rain. Yet in the literal acceptance of this is centred the whole concept of Yajna.

To the Vedic worshippers sacrifice was a science —the science of Yajna. Together, the three Vedas were called the threefold science or Trayīvidyā. The experiences described therein were real in the most fundamental sense, and not merely in the fanciful and poetic. Perhaps no people in history have been so truthful as these ancient Āryans; and what they have left on record has to be taken seriously and not as the superstitious delusions of an unscientific age. This innate truthfulness has been the most characteristic feature of Indian culture through the ages. As is said in the Mahābhārata: Truth alone prevails and not falsehood : *Satyam eva jayate nānritam.* Through the ages the prayer has gone forth : From the unreal lead me on to the real : *asato mā sad gamaya.* One of the highest praises bestowed upon the gods in the Veda is that they are Satya, true, truthful, trustworthy. Other words applied to the gods as truthful beings are :— *adrogha* which means literally not deceiving. *Adroghavak* means he whose world is never broken. Thus Indra is said to have been praised by the Pitris as ' reaching the enemy, overcoming him, standing on the summit, true of speech, most powerful in thought'. *Droghavak* on the contrary is used for deceitful men. Thus Vasishtha, the great Vedic Rishi, exclaims: "If I had worshipped false gods, or if I had believed in the gods vainly—but why art thou angry with us O Jātavedas ?—may liars go to utter destruction ". Such was their regard for truth ; and truth for them was not merely an intellectual proposition

like the statement that two and two make four, or that the sun rises in the east, but something fundamental, the very backbone and support of existence—physical as well as psychological. Thus we have the Mantra *satyenottabhitā bhūmiḥ*—this earth is propped up by truth. Thus the Śatapatha Brāhmaṇa has it: "Whosoever speaks the truth, makes the fire on his own altar blaze up, as if he poured butter into the lighted fire. His own light grows larger and larger and from tomorrow to tomorrow he becomes better. But whosoever speaks untruth, he quenches the fire on his altar, as if the poured water into the lighted fire; his own light grows smaller and smaller and from tomorrow to tomorrow he becomes more wicked. Let man therefore speak the truth only." There is also the following story told in the same Brāhmaṇa: " His kinsman said to Aruṇa Aupaveśi : ' Though art advanced in years, establish thou the sacrificial fires '. He replied 'Thereby you tell me henceforth to keep silence. For he who has established the fires must not speak an untruth'. To that extent the service of the sacrificial fires consists in truth."

So much for truth or Satya. But there is another conception in the Veda which is most frequently coupled with Satya and that is Rita. It is twin with Satya. Thus we find in the Rigveda, "Out of arduous Tapas were born Satya and Rita ". The word Rita is etymologically identical with the English word 'right'. In the Veda it stands for moral law as well as the natural order. Its function is cosmic as

well as psychic. In fact it is the earliest counterpart of the word Dharma. Rita is something more than truth, as it combines in itself the idea of righteousness also. The word Rita is stated to be phonetically identical with the Zoroastrian Asa, which also means truth and right. The word had close affinities with the Chinese Tao—the right way or the order of the Universe. In the words of Macdonell : "It would be in the spirit of all three religions to say : Asa, or Rita, or Tao is the basis of religion." We will now examine the Vedic concept of Rita with greater attention. Of this Dr. Carpenter writes : "Here is that which exists before heaven and earth; they are born of it and even in it, and its domain is the wide space. From it likewise, the gods proceed; and the lofty pair, Mitra and Varuṇa, with Aditi and her train, are its protectors. But through the mystical identity of the order of Nature and the order of the sacrifice, the cultus—whether on earth or in heaven—is also its sphere. Agni, the sacrificial fire, the dear house priest, is Rita-born, and by its aid carries the offerings to heaven. Such also is the sacred drink, the Soma which is borne in the Rita's car and follows its ways and the heavenly sacrificers, the fathers in the radiant world above, have grown according to the Rita, for they know and faithfully obey the law. Thus it becomes the supreme expression of morality and is practically equivalent with Satya, true (literally that which is) or good. Heaven and Earth are Satya, veracious ; they can be trusted ; they are Ritāvān, faithful to

the path, steadiest in the order. Not less so is the godly man ; he too is Ritāvān, the same word being used to denote divine and human piety. And thus the life of gods and men, the order of nature, the ritual of worship and daily duty were all bound together in one principle."

In the following symbolic words Rigveda describes the concept: " Many are the waters of Rita: the adoration of Rita destroys iniquities; the intelligent and brilliant praise of Rita has opened the deaf (ears) of man. Many are the sustaining and stable and delightful forms of the embodied Rita; by Rita are (the pious) expectant of food; by Rita have the kine entered into the sacrifice. The worshipper subjecting Rita verily enjoys Rita: the strength of Rita is (developed) with speed and is desirous of (possessing) water: to Rita belong the wide and profound heaven and earth: supreme milch kine, they yield their milk to Rita."

Rita is seen to be an eminently practical conception. It is a thing which can be attained, and the means for its attainment is called Yajna. By this means man enters into Rita, and the Rita enters into man. What is needed is not the understanding of Rita in the intellectual sense, but the practising of it. Then man is at home in the universe; the earth and heaven become his parents; the winds and rain show their kinship; and he sees the identity of the light that is in man and the light that is in the sun. In the words of the Rigveda " The winds blow sweetness to the sacrificer and the rivers flow

sweetness." Let us not forget the untranslatable significance of the verb *ritāyate* formed out of the word Rita. Yajna was the cult or cultus and Rita was the culture, the realisation of it. This Rita was perceived not by itself in the abstract, but in the shape of the several gods or Devas. Shall we call them the embodiments of culture? These gods with Indra at their head were no other than the faculties of man through which his consciousness shines forth. The word Deva means shining, and the word Indriya which means 'derived from Indra' stands for man's senses. We should note particularly the sacredness and reverence with which the senses were treated. The senses had not yet been contaminated with the touch of sin by the Asuras, as for example is to be seen in the word 'sensual'. The pristine glory of the senses had not yet been clouded. They were perceived as the Kalās or digits of the Supreme Purusha. Not merely were the faculties Deva (divine) but what they perceived was also Deva. Thus in the Praśna Upanishad the disciple Bhārgava Vaidarbhi asks the Rishi Pippalāda: "Revered Sir, how many are the gods who support the creatures? How many of them manifest it? and who again is the greatest of them?" The sage replies that Ākāśa is that god, and Vāyu and Agni and Āpaḥ and Prithivi and also speech, mind, the eye and the ear; and that the central principle of life, Prāṇa, is the greatest of them all. He goes on to illustrate it by a parable and eulogises it as follows: "He burns as fire; he is the cloud; he is Indra; he is the wind. This bright

one is (verily) earth, matter, what is and what is not and also what is immortal."

What is noteworthy here is the blending of the perceiver and the perceived. These gods are neither physical like the cloud and fire nor do they subsist wholly in man's imagination, but are a reality of a subtle and new order which might be truly called metaphysical or Sūkshma. In worshipping them man kept closest to Nature. Take for example fire or Agni. He was worshipped in the physical fire; yet he was not different from the fire that is within man, that digests his food and assimilates it: Jaṭharāgni; He was not different from the fire that digests facts of experience and results in understanding: Jātavedas (who understands all that exists); he was not different from the fire of devotion and piety: Śraddhā; finally it was Agni who was the worshipper as well as the worshipped. He was conceived as a person, yet the conception was not wholly anthropomorphic. He was the medium through which all the other gods were propitiated: thus he was a sort of common denominator for all the gods. He possesses the characteristics of practically every god and can in no sense be deemed an individual like a human being. What he was perceived as, and what was expected from him, could be better grasped from the very first Sūkta of the Rigveda:

" I magnify Agni the domestic priest, the divine ministrant of the sacrifice, the invoker, the best bestower of treasure. Agni is to be magnified by past and present seers, may he conduct the gods

here. Through Agni may one obtain wealth day by day (and) prosperity, glorious (and) most abounding in heroes. O Agni, the worship and sacrifice thou encompassest on every side, that same goes to the gods. May Agni the invoker, of wise intelligence, the true, of most brilliant fame, the god come with the gods. Just what good thou O Agni, wilt thou do for the worshipper, that (purpose) of thee (comes) true, O Angiras. To thee, O Agni, day by day, O illuminer of gloom, we come with thought bringing homage; (to thee) ruling over sacrifices, the shining guardian of order (Rita), growing in thine own house. So, O Agni, be easy of access to us, as a father to his son: abide with us for our well-being."

The objectives of the Vedic culture are tangible and full-blooded. They are neither quietistic nor ascetic. There is a healthy joy in life, and the spirit of adventure. It might be thought that all this was compensated for by the Upanishads. In fact it has been suggested that the Upanishads represent a sort of reaction against the Vedas. But this is more apparent than real. Any number of passages could be quoted from the Upanishads to show that they are the natural completion of the Samhitā. They are the fruits of the same tree of which the Samhitā and Brāhmaṇa are the trunk and branches. The following citation from the Taittirīya Upanishad will bear this out: "May He, the Supreme among all Vedas, the One of Universal form, born of the immortal Vedas, Indra, enliven me with intelligence. Of the immortal, O God, may I be the possessor.

May my body be fit; may my tongue be sweet; with ears much may I hear. The sheath of Brahman art Thou, enveloped by intelligence; may Thou protect what I have heard."

The old Indian culture seems to have been very much concerned with direct experience, as far as possible without the intermediacy of material things. Material things were used, but as symbols. Thus fire was tended not so much because it could melt the metals and cook food; but rather because Fire was a symbol of God, through which man could have direct access to the inner regions of his consciousness, or shall we say, unconsciousness? By meditating on him, regions of experience of which man is ordinarily unaware, were brought within his ken. It was Fire that led man by the true path, to bliss and enjoyment. Agni was aware of all his acts and He destroyed that crookedness which is in man and is called sin. This is what is meant by the prayer which we find in the Īśa Upanishad, "Guide us, O Agni, by the road of bliss to enjoyment, O god who knowest all acts. Destroy our crooked sin that we may offer thee our best salutations." The worshipper contemplated the sun not as a mass of incandescent gas, but rather as Pūshan: he who nourished life. Thus he addressed him: "O Pūshan who with thy golden disc has covered up the face of Truth, uncover it so that I who am intent on Satya and Dharma may be vouchsafed thy vision." There is ample evidence that these prayers were answered. There is the ring of truth and authenticity in the declarations made.

Thus the Rishi has cried in exultation: "We have drunk the Soma; we have become immortal; we have reached the light; we have found the gods. What can hostility now do to us, and what the malice of mortal man, O immortal one?" Again another Rishi has exclaimed: "I have realised this great Being who shines effulgent like the sun beyond all darkness."

The process by which these results were achieved was called Yajna, as we have already seen. Yajna functioned in the region of experience known as Rita which may also be called *Adhidaiva*. On the one side was the purely physical inanimate cosmos of which visible space, infinitely divisible, was the manifestation, and on the other was the subjective self in man, one and indivisible. They are the *Adhibhūta* and the *Adhyātma*. Both are recognised by us moderns; but for us there is no link between them. But ancient Indian culture possessed the link between these two; and that was the region of the *Adhidaiva* where the infinite variety of the external world and the unity of the self were subtly blended together, as in man's personality. That is what is meant by the statement in the Gītā that Purusha is *Adhidaivata*. It was in this region that Yajna was effective. Man attuned himself to the physical universe and he attained such harmony with it that he could say without untruth 'from Yajna arises rain'. The creation of the universe itself has been pictured as a cosmic Yajna in that celebrated hymn of the Rigveda called the *Purushasūkta*. The

primeval Purusha is described therein as thousand-headed, thousand-eyed and thousand-footed, as enveloping the world on all sides, then extending beyond it. Purusha is all this, whatever has been and will be. He is the lord of immortality, yet it is he who takes food and grows beyond mortality. Such is his greatness. A fourth of him is all beings and three-fourths of him are what is immortal in heaven. There was a symbolical Yajna in which this Purusha divided himself into this ordered universe, animate and inanimate. Thus was the sacrifice established by the Devas. Thus order was introduced into chaos: the apparently inanimate forces of the universe reached godhead and became accessible to realisation: *sādyās santi devāḥ*.

Yajna was thus an experimental method and it was obviously successful. A reputed scientific writer, Dr. Georges Sarton, has said rather complacently : "The great intellectual division of mankind is not along geographical or racial lines, but between those who understand and practise the experimental method and those who do not understand and do not practise it." But if asked what experimental method is, he would reply perhaps that it consists in mixing potassium chlorate and manganese dioxide and heating them with a view to getting oxygen. So it is, but the case is purely *Adhibhoutika* or material. The experimental method could be applied to the subtler regions also, *viz.*, to the *Adhidaivika*. Such experimental methods were Yoga and Yajna. What shall we say of those that refuse to understand or practise them,

before judging them and stigmatising them as superstition and magic? A favourable attitude and sympathy will surely bring in their train and in good time, the requisite understanding and perhaps practice. Yajna will then no longer be thought of as something alien to man, but rather as twin born with him, by which he thrives and attains his ends, namely, the Purushārthas (chief values of life).

The ideal of Yajna has no doubt degenerated; and this must be due to the preponderance of Anrita (the power opposed to the right and the good) over Rita. The vicissitudes of these two forces graphically described in our literature read to us a great cultural lesson. In the Brāhmaṇas it has been said: Vishṇu verily is Yajna, and as we know, Vishṇu goes to sleep for long periods. At such times Anrita, which is the antithesis of Rita, prevails. Yajna is done, but the offerings are snatched away by the Asuras and the Rākshasas. These Asuras are close kinsmen of the Devas. The Devas and Asuras are represented in our mythology as fighting with each other all the time and with varied success. Sometimes the gods prevail and sometimes the Asuras. The gods are those wholesome and rounded tendencies in man, which conduce to his realization of all the Purushārthas. On the contrary the Asuras are hypertrophied tendencies in which some faculty or aspect is allowed to grow at the expense of the others. There is always a growth of power in one direction coupled with atrophy in others. Shall we say that the Asuras are bloated specialists and reckless record-

breakers? For example there was Rāvaṇa with ten heads. What could this signify but exaggeration of brain power? It is said that Kabandha was all arms and no body, and that he grabbed everything which came within his grasp for a distance of seven leagues (Yojanas). What is this but greed personified and magnified? All these were destroyed by the touch of Srī Rāma who is described as the embodiment of harmony and comeliness: *āryas sarvasamaś caiva sadaika priya darśanaḥ.*

Rāma prevailed in the long run, although he had his bad days when he lived as an exile in the forest, and his wife was taken away as a captive by Rāvaṇa. This would be a good allegorical description of the course of Indian culture, and no true Indian will hesitate about his allegiance as between them. But in the meantime it will be remembered that Rāvaṇa had defeated the Devas and kept them all in bondage, and the Rākshasas were fattening on the oblations intended for the gods. It should not be thought that the Asuras were averse to Yajna. No, on the contrary they were very anxious that Yajna should be performed; but in their honour, and not in the service of the gods. After all, it should not be forgotten that Yajna was only the means, like Tapas and Yoga. Rāvaṇa as well as many, in fact all the Asuras, were great Tapasvins (ascetics and Yogis). But by their asceticism and Yoga they did not desire the growth of Rita but of Anrita. It is said that the Rākshasas used even the Vedas for their own purposes like the devil quoting scripture. They were

Brahmarākshasas. Thus when Hanumān went to Lanka on his first trip, it is described that in the dead of night he heard the holy chanting of the Brahmarākshasas who were experts in all the six auxiliaries of the Vedas and had performed the greatest sacrifices.

The Bhagavad Gītā says that the divine qualities lead to freedom while the demoniac qualities lead to bondage. The former go along the line of surrender, along the channels of the cosmic *Prāṇa* : Indra and Indriya. On the other hand the Asuras are the deadly enemies of Indra. They are compact of egoism or *Ahankāra*, and they lead on from glamour to glamour into veritable orgies of futile and destructive action. " With vain hopes, with futile actions, with the semblance of knowledge, and devoid of sense they take refuge in the delusive nature of Rākshasas and Asuras " (Gītā). Whether we follow the Devas or the Asuras is not so much a matter of choice as of nature, *Svabhāva*. But for those for whom choice is possible, the Devas and Asuras have first to be recognised before any choice could be made and this recognition is no easy matter. It is said that the Devas love the indirect approach : *paroksha priyāvai devaḥ*. They are not *Pratyaksha*, perceptible. As for the Asuras they are said to be *Kāmarūpins*, in form protean. They assume what shape they please at will. Śūrpaṇakhā assumed a lovely shape and tried to inveigle Srī Rāma. Mārīca assumed the shape of a golden deer and Rāvaṇa that of a holy Sannyasi. We must see through the forms

before we make the choice. That is the significance of the oft-repeated statement in the ancient Hindu books that the path of Dharma is indeed Sūkshma or subtle.

To sum up : let it not be thought that unauthorised use of the word culture is made here. It has been said at the outset that Indian culture is identical with the Dharma. There is also another word which could be equated with it, and that is *Sampat*. *Sampat* does not consist of material goods, but of experience which is Sūkshma. I have tried to differentiate between the *Daivī-sampat* and the *Āsurī-sampat*. With this object I have tried to show the common ground between the oldest document of Indian culture and a more modern and universally popular one, which may well be called a manual of Indian culture : I mean the Rigveda and the Bhagavad Gītā. They might be deemed the Old and New Testaments of India. I am not criticising any alien culture or civilisation. It is not that any culture is wholly 'divine' or 'demoniac'. It is mostly a question of tendencies. There can be no denying that the ruling tendencies of Indian culture have been 'divine'. That is the moral we can draw from the Itihāsas and the Purāṇas. The Rāmāyaṇa shows the victory of the 'divine' tendencies over the obviously 'demoniac'. The Mahābhārata shows the ultimate triumph of Dharma and his brothers over the camouflaged Asuras : Duryodhana and his brood. All these drive to a single conclusion regarding the goal of all true culture : the embodied

Purusha and the Supreme Purusha, Śiva and Śakti, Nara and Nārāyaṇa, Arjuna and Srī Krishṇa—they should never be separated one from the other. Where they are joined together will be found all the elements of a glorious culture : wealth and success, welfare and morality, everlasting.

SUCCESS*

It is as pleasant to give advice as it is disagreeable to receive it. I remember similar functions in my student days when well-meaning elders would tell us how we should conduct ourselves, and try to instil in us a whole catalogue of virtues, *e.g.*, integrity, diligence, honesty and so on *ad nauseam*. I am afraid we did not pay much heed to the excellent advice, but on the contrary we were so perverse as to make fun of the worthy people who tendered it. Now that it is my own turn to give advice, I fear that you might accord to me the same irreverent treatment as we gave to our seniors at an earlier stage. I shall therefore try to ward off your criticism by avoiding the direct giving of advice, and offering you a few suggestions on matters of common interest which I hope will set your minds working to some purpose. In fact, it is a curious trait of human nature that it has a tendency to reject whatever is directly thrust on it, while accepting without much questioning, things suggested in an indirect manner. This feature has been the subject of investigation by psychologists and has given rise to a school of thought connected with the name of Dr. Coue, a Frenchman. One of the results of his experiments and those of his disciples has been designated 'the law of reversed effort' which states that if we

* Abstract of an Address delivered in 1937 to passed students at Bangalore.

try to do anything by an effort of will-power, there is often something in our nature which not only resists it, but even increases the obstruction in the way of attainment, whereas the same thing could be achieved with ease in an indirect manner. It is rather strange that much which corresponds to this finds a place in the ancient Hindu Śāstrās. We thus see in the Veda that the Devas (who presumably reside in the human body) are fond of an indirect approach: *paroksha priyā vai devaḥ*. I shall therefore try to obviate any resistance which you may unconsciously offer to me, by adopting an indirect and suggestive mode of approach to your minds.

When we come to examine the origins of this peculiar phenomenon in human psychology, we at once come upon the idea of the unconscious. This is a concept which has been developed very largely in modern times as a result of investigations which have shown that man's mind is like an iceberg of which only one-tenth is visible and the remaining nine-tenths is submerged. A whole department of psychology has grown under the name of psycho-analysis, whose avowed object is to probe into the submerged portion of man's mind. We would not be wrong in saying that the chief difference between the attitude of modern men towards certain problems and that of their forbears a century ago, lies in the emphasis laid on the part played in men's affairs by the unconscious. It used to be thought that men's conscious motives, *i.e.*, those which he was able to recognise and reason about were all that

counted. But it is now admitted on all hands that there is an unconscious element in man's personality which though submerged, influences all his actions and even thoughts from beneath, and that some of his principal problems are due to the working of what have been called 'complexes' buried in the region of the unconscious. These play their part in such a disguised manner that he is unable to recognise their true origin. The main thing to remember about the unconscious is that it is composed almost wholly of repressed ideas, which for one reason or another are withheld from consciousness, and that its substance is emotional and dynamic. We shall not be able correctly to understand either our own nature or that of our fellow-beings unless we take into account the workings of this hidden but potent factor. The point which I should like to emphasise just now is that in contradistinction to the conscious mind which is primarily intellectual, the content of the unconscious is mostly emotional.

Many of our personal and social problems, I would repeat, have their roots in this submerged portion of man's personality. This accounts for the paradox that although most men know what is right, they still pursue furtively, courses which they know to be wrong, and yet have not the courage to resist. The direction of cure for this is to recognise the part played by the unconscious in our mental make-up and functioning, and to reach that emotional integrity which alone will help us to lead an equable and balanced life. Westerners have only recently

realised the importance of these facts, and they have not yet developed a satisfactory technique for dealing with the psychoses or neuroses from which most men suffer, including even those who are considered normal and mentally healthy. It is one of the merits of our ancient books that they had not only recognised the existence of the unconscious, but had also developed elaborate and sometimes secret techniques for dealing with it. It is too big a subject for me to broach, except by way of merely mentioning it. It will suffice to say here that the practice of Yoga and the rituals of worship have all a very profound connection with the integrating and harmonising of man's submerged emotional personality. I do not ask you to start practising any of these, but only to think of them as entitled to a more respectful consideration than educated Hindus have been according to them in recent times, and to avoid dismissing them with scant courtesy as primitive superstitions.

I shall now refer to another aspect of the subject. I have stressed the emotional and unconscious elements in the human personality, in order to point out that culture is not purely an intellectual affair. It is not a mere combination of intellectual capacity and versatility. On the other hand, according to our ideas, real culture is impossible unless a person has a harmonised emotional personality in which his complexes do not obstruct the realisation of his highest aspirations. The stress in culture, I feel, should be more on the emotional side of man's

nature than on the intellectual, especially in the circumstances of the modern world. We should revive the old Hindu ideal of culture. The Sanskrit equivalent of the word culture is *vyavasāya*, and the Bhagavad Gītā tells us :

> *Vyavasāyātmikā buddhirekeha Kurunandana,*
> *Bahuśākhā hyananaāśca buddhayo-vyavasāyinām.*

In interpreting the word Buddhi here I would ask you not to give too intellectual a significance to it, but to understand thereby man's whole psychic personality, including the unconscious and emotional elements. The Śloka will then mean that the cultured personality is that which is unified and integrated while that which has too many directions is the reverse. Let me emphasise that the stanza does not merely refer to intellectual concentration as contrasted with the distracted mind. My present purpose will however be served if I can persuade you to avoid equating many-sidedness with true culture.

One more aspect of the subject has to be dealt with : I must not forget that I am addressing the passed students. I do not wish to undervalue success, but success is not everything in life. The tendency in these days is to praise success and to cry down failure. For some, indeed success is the only virtue, and failure the only crime ! Let us avoid this and remember that one may succeed throughout one's career and yet be intrinsically a failure and miss the best values in life. There is a certain ultimate good,

a *summum bonum*, which can coexist even with failure. To miss it would be to miss the whole end of life, and the greatest material success would be but poor compensation for it. I believe that it must have been with reference to such a possibility that Jesus Christ uttered the warning that it would be small profit if a man should gain the whole world but lose his own soul in the process. I would not however dwell too much on the antithesis between the world and the soul, but would rather impress on you the Hindu ideal of *Purushārtha*, the objective of all real culture in which the normal satisfaction of the worldly ends Artha and Kāma is coupled with and balanced by their complements : Dharma and Moksha.

I shall now sum up the points which I have dwelt on today. There is a large unconscious element in our personality which influences our thoughts and actions. Its content is primarily of an emotional as distinguished from an intellectual nature. It is possible for us to come to terms with this unconscious element, so that it may not only not be an obstruction to the realisation of the highest goal in life, but even be a help. This goal which has been compendiously termed *Purushārtha* in our sacred books, is not identical with material success although not incompatible with it. It consists in a harmonious development in which all the components of our personality find their fullest expression. Such a state alone is true culture, and it is my earnest desire that all of us should seek to attain it.

It is now my pleasant duty to congratulate those who have been successful, and at the same time, to tell the less fortunate that they should not be unduly depressed over their failure. Let us remember that there is a good in life which transcends success and failure. May it be ours!

PROGRESS*

A GREAT change has come over men's minds and outlook all over the world. The ferment is especially active in the mind of the younger generation. Everybody feels that the fruits of the commonly held doctrine equating civilisation with mechanical progress have not been very savoury. This does not mean however that the results of scientific advancement have to be discarded and that we have to return to a state of primitive nature, but that they have to be supplemented by those humane ideals which actuated the great civilisations and religions of the past. As in the story of Aladdin and the Wonderful Lamp it would appear as if we have not been wholly gainers by exchanging the old lamp for the new.

During the last War we never fully realised what it all meant. Today the War has come nearer to us in all its horror and we are living every moment in the apprehension that we may all be engulfed in the whirlpool here in India. At such a time it behoves all of us to see that our sympathies are on the right side and that we exert ourselves to the utmost, practically and morally, not merely to resist any invader who may come from outside but mainly the insidious forces of lawlessness and disorder which may raise their head inside the country.

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* Abstract of the Inaugural Address delivered before the Intermediate College Association, Shimoga, in 1942.

The prevailing state of affairs is a direct challenge to the light-hearted theories of progress which have held men's imaginations for over a century. It cannot be explained away as a mere off-shoot not directly in the line of civilised advance but a diversion. We may well enquire seriously whether there are not grave defects in the outlook itself which have brought nemesis in their train, and which unless speedily remedied will destroy civilisation itself.

The civilised world of today is justly proud of two things : its ideal of democracy in the political and social spheres and its scientific outlook and achievements. The bases of a true democracy however do not seem to have been appreciated. Real democracy does not consist of a faith in numbers or the divine right of the majority; nor is civilisation that kind of progress which can be measured in statistics. Democracy is only too apt to degenerate into a worship of mediocrity and into a mere political expedient unless broad-based on the sacredness of human life and the divinity that resides in every individual. The foundations of democracy should be spiritual and not utilitarian or materialistic. It was such a concept that was embodied in the Hindu ritual of *Vaiśvadeva* and *Atithi Pūjā*. It would be a good thing if today we could revive its spirit.

The achievements of science cannot be belittled. But we need not go to the other extreme of exaggeration. Science has brought incalculable gains to humanity; but it has also brought in its wake endless

misery and is brewing the seeds of more. Essentially it is a method adapted for dealing with the inanimate world of matter. Deification of this method and its adaptation to spheres to which it is not suited have been its bane. The best results can be achieved only when it is kept in its own place and not allowed to usurp the place of the human spirit. It must always be subsidiary to human ends and personality. Otherwise the machine and its mentality rule the world and man becomes the slave of the machine, than which there can be no greater disaster. The Universe in its purely mechanical aspect is a big soulless machine : *Prakriti.* It has no meaning apart from the soul or *Purusha.* Hindu philosophy maintained the proper balance by asserting the supremacy of *Purusha,* and saying that *Prakriti* functioned for the sake of the *Purusha.* This was the ideal of Purushārtha which is the most harmonious and wholesome that has yet been evolved by man.

In the sphere of science the greatest advances were made only after the recognition of the conservation of energy. Some such principle of conservation seems to rule in the world of human values also. We cannot have something for nothing, and every gain has to be paid for, sometimes dearly. The gains of mechanical science have all been paid for although we have not counted our losses. An unbiassed retrospect will show that even the so-called Dark Ages possessed and cherished ideals like honour and chivalry, of religious exaltation and

ecstacy which are not very much in evidence today. It would appear as if a doctrine of compensation or retribution lay at the back of things. Such a recognition was the basis of the well-known but much misunderstood doctrine of Karma. A right understanding of this doctrine will restore the balance and reconcile apparently conflicting ideals. This synthetic outlook constitutes the glory and ornament of Hindu culture.

The outlook was not restricted to mere theory but had its own unique practical aspects. Instead of concentrating on the outer world, stress was laid on the inner instrument of apprehension : the *Antaḥkaraṇa.* Tools and machines were not developed but the mind was tuned to a fine one-pointedness : *Ekāgra Buddhi*, and this led on to the development of faculty or *Siddhi.* But the matter was not allowed to rest there. Even *Siddhis* were considered to be but obstacles in the path of spiritual progress, whose goal was the supreme vision in which all opposites were harmonised. The result was *Samatva* or *Samadarśana* ; the balanced vision which is the goal of the method of self-culture known as Yoga which was at once a philosophy and a discipline. Only through some such process can spiritual democracy be achieved.

I would emphasise the fact that these results were actually realised and are realisable today. This has been proclaimed in no uncertain language in the Gītā and the Upanishads. This does not necessarily involve a renunciation of the world and

its activities. I think it was the devil who prompted the gibe about making the best of both worlds. Hindu experience is emphatically to the contrary. *Vyavahāra* and *Paramārtha* can be combined and have to be combined : like Krishṇa and Arjuna or Śiva and Śakti. In such a combination alone lies the salvation of humanity.

EDUCATION OF THE EMOTIONS*

IT is a commonplace to say that we are passing through very unusual times. They are indeed not peculiar to Mysore or even to India, but are shared by us with the rest of the world. They are not due to the War but are traceable to causes of which the War itself is but a symptom and an offshoot. We are concerned today mainly with their educational aspect. The educational world today is in a state of acute upheaval. The boys have come out of the schools and colleges and no amount of persuasion or coercion whether on the part of the authorities or parents seems to have had much effect in making them go back. The girls are in it too, strange to say. In fact it would appear as if it is their enthusiasm which is the greater and their presence which is putting the boys on their mettle. The phenomenon was not taken seriously to start with. It was believed to be a passing effervescence. But now it looks as if it is something more deep-seated. That the boys are not going to school is the least anxious part of it. We are facing no less than what may be called the revolt of youth. It would appear as if there has been a complete reversal of values. The older and younger generations seem to have completely got out of gear with each other and to be speaking different and mutually incomprehensible

* Abstract of the Inaugural Address delivered before the Undergraduate Teachers' Association, Mysore, in 1942

languages. The indirect consequences of such a state of affairs are even more grave. They have set a premium on indiscipline and even encouraged a disregard for all organised life. Not very long ago when I had occasion to address the students at Shimoga, I uttered a word of warning in this behalf and appealed to them to keep their sympathies on the side of order and discipline. I felt then that a crisis was coming on, but I little dreamt that we would be in the midst of it in less than a fortnight. Today the best minds are anxiously struggling to find out a solution for this impasse, laymen as well as professional educationists. Let us put our heads together this evening and see if we cannot contribute our humble mite towards finding a remedy.

Before finding a remedy however, the trouble has to be diagnosed. Let us see what others think of it. A very recent book by H. G. Wells : *The Outlook for Homo Sapiens* deals with these absorbing questions. It is thought-provoking, although I do not think much of his solutions. In his preliminary survey based on a wealth of scientific data, he draws attention to the biological significance of the fact that there is a surplus of young men in the world today. As he says : " Young men, full of beans as people say, and looking for trouble. Hitherto, historians have failed to recognise the great importance of this trouble-making stratum. It is well to underline it here. It is a primary social fact." He goes on to say, " Something had to be done to and for these young men, and the easiest way of

keeping them out of mischief, keeping them disciplined in fact and the numbers of them down, was war." "The young man surplus, if it is not consumed, is the main source of rebels, revolutionaries and disturbances of all kinds." This has given rise to a tension the acuteness of which has been augmented up to breaking point by the feverish tempo of scientific advance and the stress and strain of a machine civilization. "Somehow that tension must find relief and he finds relief in any *ism* that offers itself.... The essential fact is the accumulating tension of unsatisfied youth, and these *isms* are merely formulæ of relief."

So far we may agree with Wells. However, when he proceeds to seek remedies solely in the external sphere of social organization he ignores the fact that such tension is mainly a psychological phenomenon. He pays scant attention to the findings of modern psychology. The most outstanding discovery and achievement of modern psychology is to show to what an extent our mental life operates at subconscious levels, and how the mainsprings of conduct lie in the deep-seated instincts and emotions. Hitherto, civilisation has been mainly an intellectual enterprise for the control of the resources of the environment. Educational theory and practice have weakly followed suit and have been concerned with the conscious rational fringe of the mind which was considered mainly as an instrument for problem-solving. But recent psychological studies regarding the emotions and behaviour distinctive of early

childhood, and the significance of the great emotional reconstruction called adolescence, have made a change in the entire outlook. If this changed outlook should embody itself in practice, education will become largely a question of the wise expression and control of the emotions, and civilization itself essentially a system for the control of the emotional life in a comprehensive fashion. To show to what extent indeed has the pendulum swung to the other extreme, I may mention that a well-known psychologist has said that the human race is by nature hysterical : All primitive peoples are hysterical, children are notably hysterical, and the steadiest of us are likely to become so under severe stress ; so that the problems of civilization is to reduce the native hysteria of the human race. Social menaces like fanaticism appear to be hysterical excesses. The difficulty in establishing rational conduct lies in this predisposition to hysteria and he considers that the essential aim of education is to provide for emotional stability and control by subduing and directing to desirable ends (sublimating) the native hysterical trends.

The wise expression and control of the emotions is indeed not a new idea. We seem to have come back by a devious route to the goal of the classical civilisations, whether it be in India or China, Egypt or Greece or Rome : the making of a gentleman. That was the aim of the grand old mythologies, and the time-honoured disciplines of all the great religions provided for training and graded emotional

satisfaction. It is a fallacy of the times to think that satisfaction can only come through economic and political ideals. It was recognised long ago that man doth not live by bread alone. I am not pleading for a revival of the old religions, lock stock and barrel. Such a thing would not be possible even granting it were desirable. But we shall wholly miss their import and significance if we do not realise that they performed a most essential twofold function : on the one hand, they reached down into the depths and recesses of the soul or psyche and provided relief (what the Greeks called *katharsis*) : the much needed ventilation and sanitation of the subconscious region; on the other, they gave wings to the soaring spirit of man and made it possible for him to have moods of blessedness and exaltation and mystic ecstacy. In both ways they made it easier for man to live the sane rational life in the middle plane of the work-a-day world.

The decay of the old religions and mythologies left a void in men's hearts which could not be filled up by any external goods. They felt dimly that it would be but little profit though a man were to gain the whole world if he should lose his soul in the bargain. Undoubtedly it was with a view to fill up the void however imperfectly that new religion-substitutes like Fascism and Nazism came into being. Only thus can we understand their grip on men's minds and the appeal of their new mythologies and rituals. These ideologies started early enough with the child and have thus got ready today the men

with the *rājasic* and *tāmasic* fervour requisite for their sinister purposes. I am afraid the democracies have nothing parallel to show and hence their comparative weakness. They may well take a leaf from the totalitarians but adapt their technique to *sāttvic* ends. There would be nothing derogatory in this. Do we not read in the Purāṇas that when the fortunes of the Devas were at a low ebb and the Asuras were in their heyday, Brihaspati sent his son Kaca to learn wisdom from Sukra, the Guru of the Asuras?

That is how I read the present-day conflicts and tensions, whether it be the War, or the upheaval in the student world. It is an uprising with dynamic and destructive force from the subconscious, like an earthquake, of tendencies which have been repressed for nearly a century, ever since Darwin's *Origin of Species* was published, and a humane classical education gave place to one predominantly scientific and impersonal. The balance should be urgently restored. For this purpose assuredly, we need mythologies and rituals but these must be grounded in the nation's past and be true to the racial memories (*Saṁskāras*) and conform to its highest ideals. They must at the same time be adapted to the modern temperament and taste. In India there is no lack of material. In fact there is a plethora of it. Yoga and Yajna in their proper perspective and context, are not superstition. They are effective and necessary. They are only waiting for us to tap their tried resources and strength. The

satisfactions they bring are ultimately independent of contemporary social organisation and bear fruit in the individual almost immediately. Each such individual will become a quiet centre radiating the beneficent influence which will soon permeate society itself.

I would urge that it is only through individuals who have cultivated the requisite emotional balance that there can be any hope for the future ; and not through any mere changes in the educational curriculums. I am not pleading that the Purāṇas should be included in the programme of studies. Nor do I want any comparative and critical scholarship of the type made fashionable here by foreigners : holding an inquest over the bones from which life has fled. Let us also not be impatient for mass results. That is a form of greed which not only stultifies itself but often results in contraries. Greed in any form is bad, whether for scientific knowledge or even for the good. It is this insidious greed that has brought the world to the present pass. Let us have none of it. Remember the great saying of the Upanishad :

Iśāvāsyamidam sarvam yat kinca jagatyām jagat ;
Tena tyaktena bhunjīthā mā gridhaḥ kasya svid dhanam.

That is the only formula for the saving of the world. I can think of no other : *Nānyaḥ panthā vidyate-yanāya.* Teachers, teach the young people under your care on these lines and you will be paving the way for a wiser, a happier and more disciplined generation. Let that be your noble mission.

THE GROWTH OF SCIENCE*

A SURVEY

DR. WHITEHEAD, one of the foremost philosophers of modern science, has said that the mentality of an epoch springs from the view of the world dominant in the educated sections of the community. Each age has had its own preoccupation, but during the last three centuries in Europe the cosmology derived from the physical sciences has been asserting itself at the expense of older points of view which had their origins elsewhere. The findings of science have been truly astounding: so much so that men have almost come to believe that it is the only valid outlook, even that no other is thinkable. Scientists have not been limiting their observations to their own specialities but have been coming out with *obiter dicta* into the fields of culture and morals, æsthetics and philosophy. Their writings together with the practical achievements of science which have revolutionised everyday life, have had the most profound influence on the layman's mentality, even though he may not have stopped to ponder on the scientific outlook and its implications. It would therefore be interesting to attempt a survey of the whole field from the standpoint of the average man. Such a bird's eye view would no doubt be sketchy, but not without its own value. It would help to arrange our thoughts

* Inaugural Address delivered before the Popular Science Association of the Intermediate College, Tumkur, in 1940.

on a subject of the most vital importance, and above all assist in forming an estimate of the value and validity, as well as of the limitations of the scientific method.

The world-view current to-day is the outcome of the advance in the physical sciences, although the biological doctrine of evolution has had its own share in shaping it. The science of the mind is only recently entering the arena, and the part it has played has so far been comparatively insignificant. Science in its modern connotation has been a slow, but by no means a steady growth. Its course, like that of true love, has not run smooth. It has had strange ups and downs. Historians of science have usually treated it mainly as a product of the West, whose origins are to be looked for in the countries bordering on the Mediterranean. It used to be considered a typically Greek activity, contrasted with a dread abstraction called Orientalism. The view is however gaining ground that the Greek culture was only a continuation of the older civilizations of Mesopotamia and Egypt. This veiw itself may have to be revised in the light of the discovery of the Indus valley civilization in the remains at Mohenjo Daro and Harappa which date back at least to the third millennium B.C. When the story is fully told, the Nile and the Euphrates may have to give place to the Indus as the mother of science and civilization. That is, however, still a matter of conjecture. Undoubtedly the Babylonians had made great advance in astronomy and mathematics. Their results were taken over

by the ancient Egyptians. The Egyptians had developed a very high grade of civilization and an advanced technique. As far back as 4236 B.C. they had introduced a practical calendar. Papyrus manuscripts discovered accidenatally during recent years have thrown much light on the extent of their advance in the arts, in astronomy, mathematics and medicine. That Egyptian medicine had reached a high level, free from magical notions and dealing with its subject-matter in a positivistic spirit resembling that of modern science, is revealed by the Edwin Smith papyrus which embodies a tradition which is perhaps as old as the fourth millennium B.C. But on the whole, there is no evidence of any attempt to explain all phenomena on the basis of a system of natural law which is the aim of science.

The spirit of pure science, it is claimed, first manifested itself in Greece in the sixth century B.C., and the Greeks were the first people in history to exercise a disinterested curiosity in natural phenomena apart from practical problems. Thales of Miletus was among the earliest enquirers in Europe to ask the question, "Of what and in what way is the world made?" His answer was that water was the first principle of all things. Other philosophers claimed priority for fire, air and earth. Early Greek thought thus recognised four elements, each of which was in turn sought to be made the origin of things. The affinity of these notions to the Hindu doctrine of the five great elements the *panca mahā bhūtas*, will at once be obvious. The Hindu theory was undoubtedly

earlier, as also more comprehensive and systematic than the Greek. In all probability the Greeks borrowed from India.

Thales was an Ionian, and it was on the Inoian coast that physical theories closely allied to those of modern science were evolved in the sixth and fifth centuries B.C. It was here that Democritus propounded a theory of atoms, which was destined to have a revival after the lapse of many centuries. These theories were however not the result of observation but were based on philosophical speculation. They were on the whole in consonance with the prevalent world-outlook of the day and showed a characteristic tendency towards a combination of the religious, philosophical and scientific standpoints. The work of the Ionian physical philosophers was carried on during the succeeding two or three centuries by the Alexandrian school with which are associated great names like those of Euclid, Archimedes and Ptolemy. The main line of the Greek genius however pursued an altogether different course. Pythagoras and his followers did much for the growth of mathematics, but they combined it with a mystic theory of numbers and the doctrine of reincarnation. Socrates and Plato carried on the Pythagorean tradition. They were concerned more with a world of values rather than of natural phenomena. They were definitely hostile to Ionian science. To them the problems that mattered most were those of ethics and conduct. Plato's *Timæus* in which he expounds his cosmic theory has been described as "a picture

of the depth to which natural science can be degraded by a great mind in its endeavour to give a specific purposive meaning to all parts of the Universe". The schools which grew out of these traditions, *e.g.*, the Epicureans and the Neoplatonists as well as the Stoics of later times were all inimical to the scientific spirit in the secular sense as understood at present, which had to wait for fully 2,000 years before it came into its own.

The Romans who succeeded to the Greek heritage were a matter-of-fact people with no particular aptitude for science. Their attitude appears to have been due not so much to incapacity as to a world-outlook which put practical considerations above the theoretical. Their curiosity did not run away with them. and they did not value mathematics for its own sake. As Cicero said, " The Greeks held the geometer in the highest honour. accordingly nothing made more brilliant progress among them than mathematics. But we have established as the limit of this art its usefulness in measuring and counting." He claims, " the Romans always showed more wisdom than the Greeks in their inventions, or else improved what they borrowed from them, supposing they thought it worthy of serious attention." Apart from their practical interests the Romans were an essentially religious people. As Polybius wrote, " The Romans were more religious than the gods themselves." So much so, that their mind naturally ran into superstition and they greatly prized arts like astrology and divination. The more sceptical minds of the day

like Cicero, and Lucretius the author of the famous philosophical epic *De Rerum Natura* have recorded their protest against the prevailing superstition.

The Jewish-Christian theology which began about this time to influence the Græco-Roman world, was definitely hostile to science and its growth. The newly converted Christians were eagerly looking forward to the speedy end of the world, in a kind of *mahā praḷaya*, which they called the Lord's Day. To them science and its preoccupation with natural phenomena savoured of impiety. They heartily shared the contempt for Greek science to which St. Paul has given expression in the Epistle to the Galatians, " When ye knew not God, ye did service unto them which by *physis* are no gods. But now, after that ye have known God, or rather are known of God, how turn yet again to the weak and beggarly elements, whereunto ye desire again to be in bondage ?" Apostolic Fathers like Tertullian were proud of being unphilosophical in their faith. In 390 A.D. Bishop Theophilus destroyed one of the great libraries of Alexandria. In 415 Hypatia, the daughter of Theon the astronomer, and herself a teacher of mathematics, was brutally murdered in Alexandria by a mob of Christian fanatics. Finally the Emperor Justinian had all schools of philosophy closed in 529. It is said that thus the first great period in the history of human thought came to an end, leaving the West to darkness and the Church.

During the five centuries that followed, European science not only did not make any progress, but

even went back on its tracks. This period roughly coincided with the spread of Islam. In 641 Alexandria was captured by the Arabs. Arab scholars henceforward took up and carried on the Greek tradition. They borrowed from other sources also, especially Indian. It is interesting to note that the so-called Arabic system of numeral notation, as well as the science of Algebra were originally Hindu inventions which the Arabs appropriated. When the Moors crossed over into Spain, Arab philosophy and science found their way to Europe through Muslim channels.

During the medieval ages not much advance was made in the positive sciences. Mainly on this account, they have been designated the Dark Ages. During this period the philosophic system of Aristotle and Christian theology dominated men's minds. Like the earth in the Ptolemaic astronomy of the day, man and his destiny were the centre of their universe. Their principal preoccupation was not the betterment of worldly conditions but the salvation of souls. They could not have desired a better spokesman than St. Augustine who said, " I desire to know nothing but God and the soul. Did I say, nothing else? Nothing whatsoever!" They were great ages of belief: and as Goethe has said, " All epochs wherein Belief prevails, under what form it will, are splendid heart-elevating and fruitful. All epochs, on the contrary, when Unbelief, in what form so-ever, maintains its sorry victory, should they even for a moment glitter with a sham splendour,

vanish from the eyes of posterity, because no one chooses to burden himself with the study of the unfruitful." We shall never understand the Middle Ages until we realise how profoundly they strove to find a deeper meaning, a sacred significance in all things. "They never forgot" as has been said, "that things would be absurd if their meaning were exhausted in their function and place in the phenomenal world, if by their essence they did not reach into a world beyond this." The medieval man was keenly conscious of the mystery of life, a consciousness which has been overpowered in modern times by the secular spirit of scientific curiosity. Characteristically, the Gnostic philosophy and alchemy had a great vogue in those times. Modern psychological researches, *e.g.*, of C. G. Jung are indicating that these had deep psychological foundations and that alchemy is not merely obsolete chemistry. These subjects will be treated in future with greater respect than hitherto, and not as pseudo-sciences which stood in the way of genuine science.

Considered as chemistry, however, the notions of the alchemists were rather primitive. Their main practical concern was with the transmutation of metals with special reference to the making of gold, and with the elixir of life. They attached great importance to colour and evolved the curious doctrine of three principles according to which sulphur, mercury and salt formed the basis of all matter. Among famous men of this period who may be deemed precursors of modern science, the

first place belongs to the Fransiscan friar, Roger Bacon, the father of the modern experimental method. About two and a half centuries later came Leonardo da Vinci, a universal genius whose writings would have inaugurated the revival of modern science towards the close of the fifteenth century had they only been published. But science had still to wait for a century to be born.

Modern science really begins with Copernicus whose work on astronomy was primarily responsible for the general adoption of the view that the earth and other planets move round the sun, in place of the old Ptolemaic geocentric hypothesis. The indirect consequences of the adoption of this theory were even more important than the practical ones. As has been said, " When the earth was once relegated from the position of cosmic centre to that of a minor planet of the sun, it was felt to be impossible to continue to regard man as the crown of creation, or as the hero of the whole cosmic drama; so Church mythology was shaken to its foundations." Naturally the Church banned the book but all in vain. A great revolution was effected whose reverberations are still being felt. Copernicus himself was a rather conservative type of scholar, and not a great observer. The experimental verification of his theory had to wait for Galileo the inventor of the telescope. With his telescope Galileo demonstrated that the planets Mercury and Venus exhibited just those phases as were required by the Copernican theory and that Jupiter with its four moons going round it resembled

the sun with circulating planets. To him also belongs the credit of investigating the motions of falling bodies and the vibration of pendulums, thus laying the foundation of dynamics. He too suffered persecution, but nothing more than an honourable detention and a mild reproof, before dying peacefully in bed. The next great advance was made by Kepler who formulated the three laws of planetary motion. It is noteworthy that Kepler was not merely a mathematician and astronomer but also a great mystic and sun-worshipper.

With Newton who was born in 1642, the year in which Galileo died, science attained the age of majority and became fully self-conscious. He combined the mathematical method with experimental checks. His synoptic genius fused into a systematic whole the scattered physical and mathematical knowledge of his time. By his comprehensive formulation of the law of gravitation and his theory of light he inaugurated modern physics. His *Principia* will rank among the greatest books of all time. But he does not seem to have realised the limitations of the method he so successfully employed. It was his boast that he did not weave hypotheses. His successors accepted him at his own valuation and for two hundred years to come, science was settled upon a firm basis of dogmatic materialism. Modern developments in physics have however shown the shakiness of the Newtonian position. We now see that notwithstanding his proud claim, he too was weaving hypotheses and not dealing with

incontrovertible fact as he imagined. Apart from his science, he was a pious and humble man. He however kept his religion and philosophy in water-tight compartments like so many others and resented the intrusion of metaphysics into the region of science, with the result that the dominant interest prospered at the expense of appreciation of the wholeness of life and the unity of experience.

A little earlier, Robert Boyle whose name is familiarly associated with the famous law relating to the pressure exerted by gases, had questioned the alchemical classification of substances in his book, *The Sceptical Chymist.* He made the first rational beginning in chemistry by introducing the cardinal distinction between elements and compounds. He also made experiments regarding the nature of combustion, and attacked the old phlogiston theory. The subject was further investigated by Priestly and Cavendish and its true nature finally explained by the brilliant French experimenter, Lavoisier, who established the law of the conservation of matter. He was executed by the leaders of the French Revolution, a warning that fanaticism is not the monopoly of religion. It is related of this great man that he asked for a short respite before his execution to enable him to complete and record the results of an experiment he had begun! A little later the atomic theory was enunciated by John Dalton, a Manchester schoolmaster. The theory itself was as old as the Greeks, but he gave it a quantitative and fruitful form. The work thus started made rapid progress

during the nineteenth century. The first synthesis of organic compounds in the laboratory was made by Wohler in 1828, emulating nature's own processes; and Mendeleef discovered the law of periodicity of the elements. The spectacular advances made in chemistry have pervaded every walk of modern life and industry. Their influence on men's outlook however has been minor as compared with those of recent developments in physics and biology.

We may now take a look backwards at the natural sciences. Greek biology and physiology were closely bound up with the practice of medicine which goes back to Hippocrates in the fifth century B.C. The Greeks explained physiological functioning by the doctrine of humours which survives in language even today when we speak of the sanguine, bilious and choleric temperaments. It would appear as if the idea was suggested to the Greeks by the Indian doctrine of the *tridoshas* which had been systematised in the Ayurveda at a much earlier date. The Hippocratic tradition was greatly advanced by Aristotle who was the son of the court physician to Philip of Macedon, the father of Alexander the Great. Aristotle was not only a great classifier but also an original observer, having dissected no less than fifty types himself. He has left several works on the subject which have elicited admiration from no less an authority than Darwin. The next great name in medicine and physiology is that of Galen, physician to the Emperor Marcus Aurelius. It was he that initiated experimental physiology and his works

remained authorities on the subject for centuries to come. No further advance was made till the sixteenth century when the Belgian anatomist Vesalius insisted on a fresh scrutiny of the facts, and a little later William Harvey demonstrated the circulation of blood. In the eighteenth century monumental work in botany and biology was done by Linnæus "the father of botany" and Cuvier. Before we go on to the nineteenth century we may pause to have a glance at geology, one of the latest comers into the field of science. It was only towards the close of the eighteenth century that James Hutton published his theory that the different strata of the earth were due to orderly deposits over long periods of time. William Smith subsequently studied the distribution of fossils through the various geological layers, a work which was of great consequence in the development of the theory of evolution. The geological knowledge of the day was brought together and systematised by Lyell in the beginning of the nineteenth century.

Charles Darwin's *Origin of Species* burst like a bomb-shell over mankind in 1859. Perhaps no single book in the whole history of human thought has caused a comparable revolution in men's outlook or given rise to more bitter controversy. His thesis that species are not immutable but have come into being by gradual modification, and that man is descended from the lower animals has now become a truism of science. The whole process is called evolution, a theory whose sweep is comparable to

that of Newton's law of gravitation. Darwin accounted for the process by his theory of Natural Selection, according to which there is a continuous struggle for existence in the animal kingdom, which leads to the natural selection of those qualities that are most useful to preserve and continue the life of the species. Darwin illustrated his theory by a remarkable wealth of facts gleaned during the course of a lifetime. It has been said that mounted on the back of Natural Selection, Evolution attacked and conquered the nineteenth century world. Its merit in the eyes of its supporters was that it was a great feat of rationalisation, substituting in place of the myth of special creation a mechanical and almost mindless process denying that the purposive striving of the organism has any influence on its evolution, and thus bringing biology into line with the physical sciences. A minority however contended with Lamarck that the modification of species depended on intrinsic reasons, and that the effects of personal and individual effort are transmitted to the offspring. Lamarck stressed the mental aspect of life, and wanted due recognition for the share that an insurgent, wilful, struggling organism full of need or "besoin" must have in its own evolution. But this was dubbed rank heresy by the orthodox Darwinians and for two generations it became almost impossible for a biologist to maintain this rather obvious proposition without suffering professional ostracism. The tide, however, seems to have turned and the doctrine is being revived today by a number of prominent

biologists, like Prof. Mac Bride, who admit that there is now abundant experimental evidence for the effect of acquired habits on the next generation.

It is interesting to note the effect of the Darwinian literature on the common man. For a long time the catchwords "the struggle for existence" and "the survival of the fittest" captured the popular imagination and theories of conduct and society were based upon them. It is only of late that it is being recognised that fitness for survival may be quite other than fitness in human value, and that the two may even be antithetical.

Apart from the evolutionary hypothesis, other great researches were made in biology, *e.g.*, the discovery of micro-organisms by Pasteur and of the laws of heredity by Mendel, not to mention a host of others. The nineteenth century was indeed a halcyon epoch for the all-round development of science. A novel future for physics was envisaged about the beginning of the century by the invention of non-Euclidean geometries by Lobachevsky, a Russian, and Bolyai, a Hungarian. Their standpoint was so unusual that even the mathematicians of the time thought they were mad, and the great Gauss who had reached similar conclusions independently had been afraid to publish them. It was one such geometry, that of Riemann, which Einstein used to arrive at his famous Theory of Relativity. The development of photography and the invention of the spectroscope led to sensational revelations regarding the nature and constitution of the celestial

bodies. Much of the accepted knowledge regarding the stars rests on such a slender foundation that it would be upset by even a slight change in the interpretation of the position of spectral lines, and could well be dubbed " spectres raised by the spectroscope". A new science of electricity and magnetism has grown up which has practically made a new world for us. The pioneers in this field were Faraday, Maxwell, Hertz the discoverer of electrical waves, and others too numerous to name. Towards the close of the century, science stood on its achievement, robust and self-confident in its materialism. The scientific method stood alone and without a rival. One of its foremost apostles, Huxley, proclaimed " I come to forward the application of scientific methods of investigation to all the problems of life." For him, Faith was " the one unpardonable sin ", yet he pinned his own faith to the scientific method, and for him science was nothing but " organised common sense".

Yet at the very time that this prophet was declaiming from the house-tops, and substituting the mythology of evolution and the " struggle for existence " for the mythology of the Bible, a new spirit was in the air which was soon to shake science to its foundations and bring about a new humility. That was the beginning of an end which we have yet to see. A number of causes contributed to this. Experiments showed that the old hard atom of matter could be broken up into still smaller units called electrons. It was disclosed that these were really not particles

and that their whole mass was due to the electric charges they bore. This broke the back of the old fundamental notion of "substance". Then Rutherford showed that an atom was really like a miniature solar system with electrons revolving round a nucleus. Striking experimental evidence for this was found in the behaviour of radium and the rays emitted by it. It was calculated that the energy contained in a thimbleful of mud, if only it could be made available by the annihilation of the atoms contained in it, would be sufficient to drive a large ship across the Atlantic, and that if all the atoms in a man's body were so condensed as to leave no space unfilled, the man's body would become a barely visible speck. All this was very far indeed from Huxley's organised common-sense. But the matter was not left to rest there.

While on the one hand the atomic structure of matter and the notion of mass itself were being denied, other researches showed that energy had a sort of atomic structure. Except on this hypothesis the results of Max Planck's experiments made about the year 1900 on radiant heat could not be assimilated. He came to the conclusion that heat was radiated by a body or absorbed by another not continuously but in small packets or quanta. Unexpected confirmation of this theory came independently from Einstein. These ideas effected a great revolution in thought, being diametrically opposed to our conceptions regarding the continuity of such things as space and energy. At present it looks as if this tendency towards atomisation is likely to spread.

Another fundamental breakdown in physics was the myth of ether which had been brought into being in order to explain the propagation of light mechanically. All kinds of contradictory properties were attributed to it until it broke down at last under the weight of the functions it was called upon to discharge. It was Einstein who showed that there was no reason at all to suppose that an ether existed. Earlier, the famous Michelson-Morley experiment first conducted in 1887 and repeated with modifications by various observers had yielded paradoxical results regarding the question as to whether the ether travelled with the earth in its motion through space. In 1905 Einstein published his first Theory of Relativity, and propounded the extraordinary conclusion that the velocity of light was the same however measured, whether from a system in motion or a system at rest, being a sort of "critical velocity" which could under no circumstances be exceeded. This was shown to be due to the fact that measures of length as well as time varied with the degree of motion. This led to some astounding results. Thus events which are simultaneous for one observer are not simultaneous for another observer moving with a different motion. There is no such thing as *the* time or *the* distance between two events.

Time and Space as separate entities which formed the basis of Newtonian physics were thus abolished at one stroke, and a four-dimensional continuum called space-time substituted, in which the relation between events was described as an *interval.*

As Minkowski announced in his famous Address, "Henceforth time by itself and space by itself are doomed to fade away into mere shadows, and only a kind of union of the two will preserve an independent reality." Abundant experimental evidence has been forthcoming in support of the new standpoint. It is not possible to refer here to the later advances based on electromagnetic and other investigations with which are associated great names like those of Raman, Weyl, Eddington, Nils Bohr and others. There is considerable lack of agreement between their conclusions and it has even been said that choice between them is a matter of taste! One important development however of the Quantum Theory has to be mentioned. That is the Principle of Indeterminacy which is based on the realisation of the fact that we cannot observe nature without disturbing it. This principle gives the go-by to the strict determinism which has formed the back-bone of official science hitherto, and makes possible the introduction of something faintly resembling our own experience of free-will. The so-called laws of nature are thus deposed from their pontifical position of inevitability, and the apparent uniformity of nature is seen to be either merely a statistical effect, or the result of a geometry which we have ourselves imposed on phenomena.

It is truly a wonderful picture of the universe that science has given to us. On the one hand, are the astronomical distances in space, the farthest visible bodies being separated from us by a hundred

million light years, a light-year being the distance travelled by light in one year at the rate of 1,86,000 miles a second ! No less than two million stars are visible to us, including the galaxies each one of which is itself an island universe. Science tells us this vast universe must have had a beginning at some remote point of time. Withal, according to Einstein and his followers space is finite and bounded, and yet continually expanding. It reminds one of the Hindu idea of the cosmos as *Brahmāṇḍa* or the egg of Brahma, and of the meaning of the root *Bṛh* which indicates growth and expansion. On the other hand, science takes us into the region of the infinitely minute, the world of electrons which comprise miniature solar systems in themselves, and the world of ultra-microscopic life like that of the filter-passing viruses. What finer and more compact description of this whole could we desire than the *aṇoraṇīyān mahato mahīyān* of the Upanishads ? A new scientific mysticism seems to be growing up under our very eyes, associated with the names of Einstein, Eddington, Jeans and others, for whom the stuff of the world is comparable to mind-stuff. Other concepts of a non-mechanical nature have been offered to us from the fields of biology and psychology to account for the whole range of phenomena in a satisfactory manner, *e.g.*, the Life-force of the vitalists, the *elan vital* of Bergson, the Cosmic Unconscious of Broad, and the *libido* of the psycho-analysts.

But it would be a mistake to imagine that these views have gained acceptance in the orthodox

scientific fold. The old mechanistic materialism is still apparently holding the citadel. Its view-point can best be expressed in the words of Earl Russell, "That man is the product of causes which had no prevision of the end they were achieving; that his origin, his growth, his hopes and fears, his loves and beliefs, are but the outcome of accidental collocations of atoms; that no fire, no heroism, no intensity of thought and feeling, can preserve an individual life beyond the grave; that all the labours of the ages, all the devotion, all the inspiration, all the noon-day brightness of human genius, are destined to extinction in the vast death of the solar system, and the whole temple of man's achievement must inevitably be buried beneath the debris of a Universe in ruins—all these things, if not quite beyond dispute, are yet nearly so certain that no philosophy which rejects them can hope to stand." He reaches the conclusion, "Only on the firm foundation of unyielding despair can the soul's habitation henceforth be safely built!" Here is a pessimism blacker than that which Westerners have been attributing to the Orient. If this is all that Science has to offer to us, we seem to be on the verge of entering a new Dark Age, compared to which the Cimmerian darkness would be light!

There is however no call for such pessimism. That is what comes of taking scientific hypotheses too seriously and forgetting their function. In their essence they are useful myths and not descriptions of reality. Their justification is that they help in

correlating certain experimental and mathematical results. But such success is no criterion of truth. The path of science is strewn with the wrecks of exploded hypotheses. Phlogiston and ether have had their day and been relegated to oblivion. Even the concepts of space and time and mass and energy are in the melting pot. It is common knowledge that successful empirical results can be derived from mistaken hypotheses. As the great psychologist Jung has said, " Columbus, by using subjective assumptions, a false hypothesis and a route abandoned by modern navigation, nevertheless discovered America." A little consideration will show that the scientific method is partial and is based on the assumption that only the mathematical properties are real because they can be measured, all the rest being ignored. But such abstraction can never take the place of immediate experience. The findings of science consist mainly of what Eddington has well termed " pointer readings " ; and they can no more speak for the whole of human experience than a telephone number can be substituted for a subscriber. There is no *a priori* inevitability about mathematics itself even in its own field. The advent of non-Euclidean geometries has demonstrated that it is possible to start with almost any axioms and postulates and evolve a consistent network of reasoning.

Science is really a closed system explaining its concepts in terms of one another. It is as if one should define a violoncello as a big violin and a violin as a small violoncello. An examination of the

famous doctrine of the conservation of energy will make this clear. When a body is lifted up to a height, it is explained that it acquires potential energy and that the sum of the kinetic and potential energies is constant. But it will at once be perceived that "potential energy" does not correspond to anything in actuality, but is a term invented for the express purpose of saving the face of the theory. It is like book-keeping by the method of "double entry" where convention requires that every item should find a place in the debit as well as credit side of the ledger. At best, science gives a working knowledge of certain kinds of structure, but none whatever of reality. To give a comparison, scientific knowledge is to reality, what a formula combining the tensions of the fiddle strings and the wave-lengths of the musical notes is to the music itself. The two are in altogether different planes.

Besides it has to be remembered that it is only a fraction of man's mind "the Euclidean understanding" that is brought to bear on scientific problems. As William James held, "the Euclidean understanding" makes human experience not more but less intelligible. A recent writer is at great pains to emphasise the functioning of the mind as a whole. He says, "But what is meant here by mind? Not the intellect taken by itself, 'the Euclidean understanding', but those faculties in us of which the Self is the sole possessor. Let us recollect that the intellect is not the deepest thing in us, and the soul does more than think. It feels, desires and wills.

The soul or 'I' is something for itself, a quintessence of primordial being beyond analysis, deeper sunk in reality than the intelligence or understanding, which within itself it brings to birth."

Again even in the application of this limited understanding, the scientific method has been full of tacit assumptions and deepset prejudices. We have already referred to its mathematical bias. But there is something more insidious than this. It has been actuated by the desire to keep out at all costs whatever looks like purpose or design, from its scheme. This has been especially the case with the natural sciences, which have been only too anxious to emulate the methods of the physical sciences, much to their own disadvantage. It is said of T. H. Huxley that he opposed the theory of evolution so long as mind and effort were held to be the dynamic of evolutionary variation, but became an enthusiastic convert when Charles Darwin substituted chance and accident in their place. To him as to many others the supreme attraction of Darwinism lay in its exclusion of special creation, and the idea of purpose. It was agreed in advance that the doctrine must be true and there followed a sustained effort to prove it true. Never has greater zeal and industry been displayed than in the search of corroborative evidence. Even today that is the attitude of the orthodox man of science. "The aim of modern physiology", says Hoffding, "is to conceive all organic processes as physical or chemical." No wonder the results have been made to match.

But as Kant has said, "It is very absurd to expect enlightenment from reason and yet to dictate to her in advance upon which side she must necessarily determine." The Bhagavad Gītā has put it even more profoundly: *Ye yathā mām prapadyante tāms tathaiva bhajāmyaham*: Reality appears to a seeker in whatever form he desires to see it. Scientists started with the "inertia" of Newton's first law of motion—*tamas*—and reached a *tāmasic* description of the universe.

This is not to cry down science but only to show its limitations and temper its air of omniscience. It has undoubtedly been a magnificent adventure of the human spirit and has enlarged man's vision and given him a new idea of freedom of thought. It has shown to what heights he can rise even by using only part of his faculties. Science is not alien to man's nature. As Jung says, "It is out of himself and out of his peculiar constitution that man has produced his sciences. They are symptoms of his psyche." But the fact remains that the scientific man is not a complete man. He has deliberately left out of his scheme wholeness, individuality and purpose, and has paid dearly for all his achievements without being aware of it. Scientists have developed an orthodoxy of their own, succumbing to the common infirmity of the vast majority of men to economise thought by a series of arrests. Science has acquired a dogmatism born of success, and a hostility to ideas which do not fall within the scope of the accepted methodology. Today, more than at any

previous time in history, is it necessary to heed Dr. Whitehead's warning, "Some of the major disasters of mankind have been produced by the narrowness of men with a good methodology."

We have seen the comparative failure of mechanical hypotheses in biology. This has been even greater in the field of psychology. For this reason, psychology has been completely left out of our survey. It is still in the stage in which biology was in the time of Aristotle. No doubt modern psychology has to its credit some noteworthy discoveries, *e.g.*, the function and importance of the subconscious mind. But these point only to the great findings of ancient philosophy and religion: that the only direction in which to look for reality is inside of oneself. Reality is first psychological and then everything else. If therefore psychology is to make any advance at all, it must start with the Self. But science including psychology, has hitherto made the not-Self its only preoccupation. The Self or anything concerned with it has been its *bete noir*, and has been contemptuously discarded as mysticism. But "The only existent which includes all other existents is consciousness, the appanage of the Self; and apart from the self, the centre of everything, there is neither consciousness nor thinking, neither desiring nor explaining, neither science nor logic, neither knowing nor being known. The attempt to derive the self from atoms and the void, from space and time, to deny it any constructive role in the system of nature has not failed for lack of unceasing

and desperate effort. It has failed because you cannot explain the self in terms of the not-self." This is not an extract from the Upanishads but from a recent Gifford lecturer (W. MacNeile Dixon—*The Human Situation*). He goes on, "The philosophies of the future will, I think, take another and more promising way. They will allow the self its unique status, its standing as a factor, a primary factor and an organising factor in the universal whole. They will reinstate personality in its true place in the universe, and leave room for its expansion." After all, a step seems to be taken in the right direction. Thus alone can the *Adhyātma Vidyā*, the Science of sciences be reached, or rather recovered.

HAS INDIA AT PRESENT ANY "PHILOSOPHY" AS SUCH OF HER OWN?

THAT is the question asked by Mr. V. Subrahmanya Iyer in an article with the same title which was published in the *Triveni* and almost simultaneously in the *Review of Philosophy and Religion* in 1940. His answer at the close of the article is also in the form of a question: " In a word, is there, at present a single school of thought in all India that could be called ' philosophy ' in the modern sense of the term ?" I am not aware if so serious a charge and challenge has been examined or answered in any of our journals. What follows is an attempt to test the consistency of the material furnished by the learned writer and to see how far the charge is tenable. The form of the article is indeed very unusual, consisting as it does of a string of no less than sixty-five quotations from European and American writers, of which fifty-three have been numbered serially by the writer, the rest being scattered throughout the body of the article.

He begins with an extract from a letter from Swami Siddheswarananda (now in Europe) in which the Swami observes, " The European mind is constituted in a different way and our aim should be to understand sympathetically that mind. Only after two years I am able to understand that the words we use, taken from their language to convey our ideas do not bring to them the same implication

that we give them." Mr. S illustrates this by showing that the word *buddhi* has been translated into at least nineteen different words in English by different writers and proceeds to examine "what we in India are to understand by the European and American word 'philosophy'". The analogy is however not apposite. The difficulty of understanding Indian philosophical terms on the part of Westerners is obviously due to the fact that Indian philosophy is not read by them in the original but only in translations, which naturally fail to convey the exact sense of the originals. On the other hand, Indians read Western philosophy in the original at least in English and have before them material which is identical with what is available to English and American writers and readers. If the English word "philosophy" had been interpreted variously by Indian writers, as for example the word *buddhi* has been by Westerners we should have expected Mr. S to show how Indian writers have understood it variously. Instead, he proceeds to give extracts from Western writers to show what "philosophy" means to them, and attempts to show that there is a general consensus of opinion on the point, which is altogether a different matter. But such as it is, we may see to what extent he has succeeded.

But before doing so, we may deal briefly with some of his preliminary quotations purporting to be valuations of Indian philosophy by contemporary writers, none of them of any particular eminence. It is rather amusing to see him at the very beginning

of his paper relying on an article in the *Times Literary Supplement* (authorship not mentioned) as "the latest and one of the most authoritative pronouncements". A good sample of the quotations is from Jacob's *Hindu Pantheism*: "The system of Vedanta is rightly charged with immorality.... What results could possibly be expected from a system so devoid of motives for a life of true purity?" This for a system which makes selflessness and the renunciation of desire, and the observance of rigid purity the very *sine qua non* of a seeker and equates the quest itself with *brahmacarya*! Mr. S quotes with approval a statement from M. Masson-Oursel's *History of Philosophy in the Orient*: "Our Western methods of research have sought to find in them a value apart from their practical value, *i.e.*, a value of truth." If a conclusion like Jacob's is the result of the modern method of research, we can only hope that India may be saved from such methods, for has it not been said "By their fruits ye shall know them?" It would not be worth our while to try to refute the charge. Fortunately there have been saner minds and methods among Westerners. It is refreshing to recollect the oft-quoted statement of Schopenhauer, surely a star of the first magnitude in the European philosophical firmament, regarding the doctrine of the Upanishads: "It is the fruit of the highest human knowledge and wisdom, and contains almost superhuman conceptions, the originators of which can hardly be regarded as mere mortals.... It is the most profitable and elevating reading that (with the

exception of the original text) is possible in the world; it has been the solace of my life and will be that of my death." Again, Paul Deussen, one of the greatest among Western orientalists, held that the Upanishadic thinkers had acquired "if not the most scientific yet the most intimate and direct information of the last secret of all being". How then shall we account for these diametrically opposed views on the same facts? Is it not possible that the "modern" method for all its airs of critical scholarship is unable to keep out prejudice; and that its invocation of the names of science and reason is in vain? If in the last resort, an appeal were to be made to authority, would not Europe itself give more heed to Schopenhauer and Deussen than to Jacob and his "modern" method?

A familiar charge against the Indian mentality is that it is only too prone to rely on authority. Mr. S is evidently no exception to this rule, even when he is ostensibly putting forth a plea on behalf of the modern scientific outlook and methods. He quotes the Marquess of Zetland with approval as "one who has studied Indian culture on the spot as a Governor of a great Indian Province" and who yet denies the existence of philosophy in India as such. He goes on to add "Some well-known and thoughtful scholars as for instance Professor Edgerton, have declared Indian thought to be 'primitive' or 'magic' philosophy, or as something meant to make men seek caves and mountain tops or some mysterious powers. Some have characterised it as pig-trough philosophy!"

It is strange that Mr. S should accept all these indictments at their face value. He does not pause to examine how much of truth and validity there may be in them, and to what extent they may be due to prejudice or temperament and to that fundamental misunderstanding of the terms and ideas of an alien language and philosophy, to which he himself has referred at the commencement of the article. On the other hand, he at once proceeds to generalize in a sweeping manner that it is no wonder many colleges in India have abolished this course of study, that the authorities of the Indian Civil Service Examination have dropped the subject altogether and that so few journals of any reputation take any serious notice of the work of Indian Philosophical Congresses and Conferences.

We may now proceed to consider the main body of fifty-three numbered quotations, whose theme, of course, is: what should be the relation of philosophy to the sciences? One would have naturally expected to see in the list the names of great physicists, astronomers and mathematicians, men like Einstein, Eddington, Jeans, Max Planck and Schroedinger who have not only revolutionised our ideas regarding the structure of the Universe but have themselves made brilliant contributions to philosophy. Strange to say, they are absent. Nor do we find the names of any great chemists, or biologists who have made excursions into the philosophical field, like J. B. S. Haldane and Julian Huxley. We do not even find the names of any philosophers of originality and note,

barring some exceptions which will be referred to later. We look in vain for the names of Bergson or Earl Russell and a host of others. On the contrary, we are regaled to copious extracts from writers mostly of the text-book status, *e.g.*, fourteen from Paulsen, and seven from G. T. Patrick; some of whom would claim for science more than the scientists themselves would dream of. In spite of all this special pleading, Mr. S fails to show that there is any consensus of opinion as to what exactly should be the relationship between philosophy and the sciences.

In order to simplify the issues, we may at the outset state that on some aspects of the question there is not much scope for disagreement; as for instance when Prof. Mac Murray says, "The eternal questions (of philosophy) wear a different face in different generations." The face they present today has undoubtedly a scientific complexion. Philosophers can not only not afford to ignore it, but must even account for it. Philosophy and science must go hand in hand at least for part of the journey, and there is reason to believe that they are doing so. As A. Wolfe puts it, "One of the most interesting features of contemporary philosophy is the renewed co-operation between men of science and philosophers." We may even go further with Viscount Samuel and say, "Philosophy frankly accepts the conclusions of science as its starting point", an idea reiterated by Paulsen, Ryan and with a difference by Broad and Taylor.

The key-note of the article is however furnished by the extract from Durant Drake, "Philosophy is the interpretation of knowledge through the synthesis of all the sciences." The definition from the *Century Dictionary* is more or less to the same effect. Mr. S seeks to support it by a number of citations of which the following are typical: J. Moore, "All philosophers of any importance now fully recognise their dependence on Science" and again, "Philosophy is entirely dependent on the sciences". And "Only that which is scientifically verifiable supplies the entire content of philosophy"—a statement attributed by Mr. S in one place to Dewey and in another to Robinson. Indeed, Paulsen would go further and assert, "Whatever is not in accord with this thought is outside the sphere of philosophy." Here we may heartily join issues. In the words of Prof. J. L. Stocks, "The striking discoveries of the scientists and their cumulative achievements have made such an impression on the modern world that men have often been tempted to think that there is no truth but science; and if this were so, there would be no room for philosophy. It is just because science represents but one of many contacts with reality that philosophy is needed; and for the same reason philosophy is neither a synthesis of the sciences nor itself a science." Comte's old positivist view that philosophy is nothing but a synthesis of the sciences was popularised in England by Mill and Herbert Spencer. It is an eminently Victorian conception, and in the extracts cited by Mr. S we hear an echo of Tyndall's

famous Belfast Address in which he claimed that science alone was competent to deal with all man's major problems. It is very far from representing the outlook of modern scientists and philosophers. " The reason is," says John Laird, himself a philosopher of note, " that the more developed sciences at the very moment when their prestige stood higher than ever in the world, became themselves distrustful of their own finality." Consequently we may safely say that the definition of the *Century Dictionary* of 1888 has decidedly gone out of vogue with philosophers as well as scientists today. It is at least half a century behind the times, to quote Mr. S's own charge against Indian Philosophy.

Modern philosophy then has its own sphere and method. It is only partially true that " Philosophy has never flourished except in alliance with the sciences "; but assuredly it has also never flourished " when it was prepared to plod humbly after them ". Philosophy is no longer content to be the handmaid of science. Several of the extracts given by Mr. S support this view. Thus A. E. Taylor has said " The work of the philosophy of Nature and Mind only begins where that of experimental science leaves off ". In the words of J. A. Sullivan " Its task is to correlate the conclusions of the sciences with those which may be reached in the course of the practical, ethical, and æsthetic or religious experience ". Or as C. D. Broad has put it, " The object of philosophy is to take over the results of the various sciences, to add to them the results of the various religions and ethical

experiences of mankind and then to reflect upon the whole". Finally we have it on the authority of Whitehead, one of the few really big modern names quoted by Mr. S, " that it brings to its task not only the evidence of the separate sciences but also its own appeal to concrete experience". This is an orientation which differs radically from that of the older positivist school.

It makes a whole world of difference as to whether philosophy is understood to mean " certain kinds of more or less completely systematised knowledge of the sciences," as Mackenzie has it; or with Whitehead and others, as covering life and experience as a whole, and not merely the schematic knowledge of certain measurable aspects of reality dealt with by science. The methods also would vary accordingly. Let us see what the authorities cited by Mr. S have to say regarding the method of philosophy. Towards the end of his paper he gives the following extract from Goethe: " Be but contemptuous of reason and science, the highest gifts of man, and you have given yourself up to Satan." In his conclusion, our author asks, " Or shall we give ourself up to Satan?" On the face of it, the answer is clear—most assuredly not. But the matter is not so simple as it looks. Reason and science cannot be thought of as words whose content is specific and on which there is general agreement. Philosophers as well as scientists have understood them variously. Goethe shows his wisdom in speaking of reason *and* science. He does not equate them. He was aware, although perhaps

dimly, that there was an implicit conflict between their methods and outlooks. Mr. S and some of his authorities do not however seem to be aware of this. M. Masson-Oursel is all for reason. Says he, "This Worship of reason has created a philosophical literature to which there is no corresponding one, or at least to which anything corresponding did not arise till very late in the East." John Lewis froths at the mouth when he advocates an "honest and irresistible train of reasoning". Frank Thilly says, "It (philosophy) makes reason the highest authority." But historians of science are now practically agreed that the great "historical revolt" which preceded the establishment of the modern scientific method was not by any means an appeal to reason. "On the contrary," as Whitehead says, "it was through and through an anti-intellectualist movement. It was the return to the contemplation of brute fact; and it was based on a recoil from the inflexible rationality of medieval thought." Of the Greek thinkers too, Whitehead has said, "Their minds were infected with an eager generality. They demanded clear, bold ideas, and strict reasoning from them. . . . But it was not science as we understand it. . . . Their genius was not so apt for the state of imaginative muddled suspense which precedes successful inductive thinking." The method of reason thus differed entirely from that of science.

One would therefore expect that scientists and philosophers who took the cue from them would be suspicious of reason as such, and would not miss

any chance to decry it. It is seen that the majority of authors quoted by Mr. S are as a matter of fact no exception to this, in spite of occasional lip-service to Reason with a capital R. Says Ritchie "That the philosopher can somehow spin his philosophy out of what he finds in himself, that he has some internal source of information in virtue of which he can decide what the universe must be, without needing the trouble to look at it, dies hard." Wundt is quoted as saying "Fruitless endeavours were made to spin philosophical systems out of a few general concepts—subject, nature and mind, being and becoming." For Paulsen, academic philosophy is no more than "the sophistical practice of speaking of all things in general with a certain air of sense and reason. Its professors are jugglers who produce all sorts of obscure and profound oracles by the promiscuous use of general concepts, to the amazement of a lot of idlers" and "A *purus putus metaphysicus* (a pure metaphysician) is a chimaera or an empty babbler", a sweeping condemnation dragging into its range every great name in philosophy, from Plato and Aristotle, Descartes, Spinoza and Liebniz, Kant and Hegel down to the present day. And finally MacMurray clinches the whole by asserting, "Academic Philosophy like academic Art is nearly always dead."

Unlike M. Masson-Oursel, these authors then are no "worshippers of reason". On the contrary, they claim to be devotees of science and the scientific method. Mr. S quotes the weighty plea of William

James for the extension of the methods of science into the fields of human relations and human problems. On examination however, this resolves itself into not so much a direction to philosophers, as an appeal to scientists to turn "the tremendous intellectual power exhibited in scientific thought and research" into spheres other than those to which they have been narrowly restricted hitherto. To come to more recent writers, we have G. T. Patrick telling us: "Philosophy is the attempt by the use of scientific methods to understand the world in which we live." "Philosophy is like science in seeking that which is certain, exact and well-organised." "No progress in philosophy can be made if we commit ourselves to some fond theory." "The method of philosophy is to see life steadily with neither prejudice nor bias nor half-knowledge." And Thilly is convinced that the particular concern of philosophy should be with the sciences of external nature and with the examination of natural things. To him the gaze turned inward is anathema, as dealing with "supernatural things". These statements deserve our careful scrutiny.

Is there such a thing as Science, unitary and homogeneous, with comparable identities in method and certainties in achievement? At the outset, we are faced with a great variety of sciences—each with its own method, and with results of very unequal validity. The science *par excellence* is mathematics, but it moves admittedly in a world of abstractions. Its successful application has been possible only to the

simplest aspects of nature. Hence science, *e.g.*, physics dealing with these aspects became highly systematised at a very early stage. No doubt, the application of mathematics to physics was based upon observation. But observation means selection, for after all, we need only attend to those aspects of concrete experience which lie within some limited scheme. Any such scheme of abstraction, if its success is sufficiently wide, becomes difficult to get over and we get bound in its coils. As Eddington, one of the foremost exponents of the philosophy of modern science has said, " We have found that where science has progressed farthest, the mind has but regained from nature that which mind has put into nature ", a conclusion which Kant had already arrived at by *a priori* reasoning. In fact, as Bertrand Russell has shown, a mathematical web of some kind can be woven about any universe containing several objects. "If this be so, " says J. W. N. Sullivan, a popular writer on science, "then the fact that the universe lends itself to mathematical treatment is not a fact of any philosophical importance."

Science of this type is really a closed system. These systems have been described as " automatic thinking machines for which mathematics and logic are, as it were, the rules and instructions. In such a deductive system as mechanics for example, it is through the defintions employed that the parts of the symbolic system are linked together, so that a given manipulation of the symbols will yield comparable results even when their precise nature

is not foreseen by their manipulator. Thus for such systems there comes to be something which is regarded as *the* definition of a particular symbol. Given the system, there will be one and only one definition of a symbol, which is the right or proper definition, in the sense that the working of the system depends upon the employment of this definition." "The narrow efficiency of the scheme was the very cause of its supreme methodological success" in Whitehead's words. But even in its own limited sphere the progress of science has reached a turning point. The old foundations of scientific thought are becoming unintelligible. Time, space, matter, material, ether, electricity, mechanism, organism, configuration, structure, pattern, function, all require re-interpretation. Whitehead draws the inevitable conclusion that the old assumptions which have held the field undisputed so long are entirely unsuited to the situation at which we have now arrived.

So much for the mathematical sciences themselves. When we come to the field of biology, the inadequacy of the approach so successful in the physical sciences becomes at once apparent, with the consequence that "the most obvious and fundamental problems of biology are not even approached". Speaking of the application of the notions of physics and chemistry to life, Whitehead says, "The brilliant success of this method (in its own sphere) is admitted. But you cannot limit a problem by reason of a method of attack." Yet this is exactly

what orthodox biologists have hitherto been attempting to do. It is beyond doubt that the progress of biology and psychology has been checked by the uncritical assumption of the half-truths which have held easy sway in the inanimate sphere. Even more than biology, the fate of psychology is an illustration in point. It is indeed in a very rudimentary state, so much so, that many deny that such a science exists. There is certainly no generally accepted body of psychological doctrine. There are a number of different theories, each having a limited range of application and, where they profess to deal with the same phenomena, differing profoundly from one another.

It will therefore be obvious that speaking of "Science" the "Scientific Method" in contexts outside their immediate sphere of application is an example of loose thinking of a dangerous type, and a very unscientific subterfuge. By hypostatizing the word, to use the terminology of the latest comer into the scientific arena, Semantics, it has been deprived of its legitimate "reference" and has only an emotive or irritant function. There is nothing inevitable about science. The actual course which science has taken has depended largely on the types of mind which as historical accidents have risen to the level of genius at favourable instants. Literally the scientific method is utterly inapplicable to philosophy because science starts with a prejudice in favour of the measurable and elicits only a half-knowledge. Philosophy, if it is to justify its existence is concerned with a whole, only part of which is amenable

to science and reason. It would be suicidal to equate philosophy with science in seeking that " which is certain, exact and well-organised ". That may be left to science. No progress in philosophy is indeed possible if we commit ourselves in advance to the " fond theory " that the course of philosophy and science should run parallel. Scientists themselves are not claiming that it should be so. Here is what a scientist has to say on the point, " Science has become self-conscious and comparatively humble. We are no longer taught that the scientific method of approach is the only method of acquiring knowledge about reality. Eminent men of science are insisting, with what seems a strange enthusiasm, on the fact that science gives us but a partial knowledge of reality, and we are no longer required to regard as illusory everything that science finds itself able to ignore."

Philosophy is concerned with the question " What is the ultimate truth about ourselves ?" Science may answer that we are bits of stellar matter gone wrong, or that we are chemical marionettes. But as Eddington says, " There is one elementary, inescapable answer. *We are that which asks the question. . . .* This side of our nature is aloof from the scrutiny of the physicist." That is philosophy's central problem. It is a problem which concerns not the professional philosopher only but every thinking man. An extract given by Mr. S shows awareness of this: " Consciously or unconsciously every man frames himself a theory of the relation of

the individual to the universe, and on his attitude to that question, his whole life and conduct, public and private depend"—E. Wallace. What is the contribution of Western philosophy to this problem, especially after the application of the much-vaunted scientific method? In all conscience nothing appreciable. It has yielded no certainties at all. On the other hand, evidences of disparity are rapidly growing. "It would certainly seem that many philosophies today treat other philosophies not as brothers or even as enemies, but as untouchables." As a great modern intellectual, Aldous Huxley, quoted by Mr. S himself, has put it, "Philosophical arguments are mostly angry shoutings at one another by two who use the same words but mean different things." Philosophic language is also developing a pseudo-scientific technicality. As Laird says, "Among certain types of philosophers, the normal attitude appears to be one of complete linguistic isolation. Each seems to say to the other, 'I do not want to talk with you unless you take the trouble to learn my language.' Moreover the menacing part of the situation is that many of these languages are exceedingly difficult to learn, not to speak of the circumstance that they rapidly become out of date." One would expect that at least at the Universities where the sciences are flourishing, philosophy also would thrive in that stimulating company. But alas, it is not so. Ginsberg makes the confession, "Philosophy at the universities has become a museum speciality, a display of lifeless systems and concepts." So much

for the practical result of the application of the scientific method to philosophy.

We may now summarise the position. The progress of science has greatly influenced thought in the West, especially, systematised thought or philosophy. But the consequences of the application of the scientific method or rather of its analogy, for the method itself is not literally applicable to philosophy, have not only not been fruitful, but have even resulted in harm. There has been no general agreement as regards the relation which ought to subsist between science and philosophy. The claim that science should dominate philosophy, which used to be put forth on behalf of the scientific materialism rampant during the second half of the nineteenth century is no longer being pressed. Science seems to have turned over a new leaf, and even to be going back on its tracks. As a recent writer has said, "The whole outlook has changed and is changing. The materialistic and mechanistic views of the last century, encouraged and strengthened by the biological discoveries of Darwin, are giving place to speculations which are in danger of falling into the abyss of mysticism." Although this may be somewhat overstated, it is beyond doubt that the limitations of science are being clearly realised, and by none so much as by the scientists themselves. Philosophers are following suit, but naturally with a certain "lag", the principal laggards being text-book philosophers of the type mainly relied on by Mr. S. They seem to be still hugging

doctrines based on scientific theories "which have now to be cast into the limbo of outworn beliefs". India has nothing to gain by following their lead as Mr. S would have us do and donning Europe's cast-off clothes.

The ignorance of some of these "philosophers" outside their own narrow speciality is colossal and matched only by their arrogance. Some more quotations from Mr. S will make this clear. Paulsen would set philosophy in definite opposition to the mythico-religious notion. For John Lewis, the mystic's vision is "the very antithesis of honest reasoning, and a piece of presumptuous dogmatism". Poussin crowns the whole; "You may rid Hinduism of its immense load of nonsense and consider it to be a sort of mystic positivism; yet it is incredible illusion to pretend to find in it anything of use." It is rather late in the day to start proving for the benefit of such writers, that India has a philosophy of her own. It does not cease to be philosophy because it does not conform to certain definitions selected by Mr. S. We have seen what these definitions are actually worth, enclosing as they do "a wilderness of idea in a wall of words". In philosophy, as in other matters, India must follow her own genius. That does not mean that Science has no message for us. The fullest use may be made of it, provided its limitations are not lost sight of in the glamour of its success. Science is a good servant but a bad master. Science is intended for man and not man for science. It is this latter outlook which has brought disaster on the

world today. In Aesop's fable of the man and the donkey, science is the donkey which should be ridden on, and not carried on the shoulders. For those, especially philosophers, who in the name of science and the scientific method, would deliberately avoid all other avenues of knowledge, Nemesis is lying in wait. The only reply to them is in the famous words of Oliver Cromwell, "My brethren, by the bowels of Christ I beseech you, bethink you that you may be mistaken !"

LANGUAGE—ITS SCOPE AND FUNCTION*

YOU have done me the unique honour of inviting me to deliver the Inaugural Address of this Association for the second time in the course of a few years. I am painfully aware that my knowledge of the Sanskrit language is not of a sufficiently high order to justify your choice. My position is well expressed by the Upanishadic sentence—*nāham manye suvedeti, no na vedeti veda ca*—I can certainly not say that I know it well, nor yet that I do not know it. Such as it is, I shall place it before you. My theme is the scope and function of language in general and of the Sanskrit language in particular. My outlook on the topic is, I am afraid, rather unusual. The conclusions are quite orthodox by Hindu standards. But the Pandits may find fault with my mode of approach which is coloured by the findings of science. On the other hand, science will be angry with me for the unauthorised use made of its results. Thus my stand which partakes of the character of a half-way house between orthodoxy and science, runs the risk of being disowned by both, the one rejecting it as new-fangled stuff, and the other brushing it aside as out-of-date medievalism. But I am running the risk with open eyes for the sake of presenting an aspect of the subject somewhat outside the routine, yet of the most fascinating interest.

* Inaugural Address delivered before the Sanskrit Association of the Maharaja's College, Mysore, in 1942.

There are some things which are so close to us that on this very account we are likely to lose sight of their importance and mystery. One such is undoubtedly language. Our acquaintance with it is bound up with the earliest years of life, and is almost instinctive. It is rarely made the subject of thought at least by the majority of users of language, comprising the whole human race. Even philosophers have mostly given it the go-by, taking it as granted and understood. Yet nothing could be farther from the fact. The full significance of this has only lately begun to be realised: to what an extent our philosophy and psychology, and even experience itself are conditioned by the use of language. Where we seem to be on the firmest earth, we are treading on something live and dynamic. In the words of Sir James Frazer, "Only those whose studies have led them to investigate the subject are aware of the depth to which the ground under our feet is thus, as it were, honeycombed by unseen forces."

Language has long been considered to be man's special prerogative, and what mainly distinguishes him from the lower animals. And so it is, if by language we mean articulate speech. But recent investigations have shown that although the lower animals have no true language, yet there are grounds for believing that they do communicate with each other to a limited extent by means of sounds and gestures. Thus the apes, who are nearest to man, are said to use a rich and varied vocabulary of sounds for purposes of communication. With these

they express their feelings and needs, but they cannot describe objects. No ape has any word for things, nor can it be taught language habits. It is thus clear that some means of communication are common to man and the lower animals, for man's own communications with his fellow-beings are not wholly restricted to articulate speech. The difference, although it is undoubtedly very marked, appears to be one of degree rather than of kind. This gives us an insight into the profound statement of Rigveda that Speech is multiform and that even the animals make use of it—*tām viśvarūpāḥ paśavo vadanti.*

Anyhow, the spoken word was a formidable tool which made possible the phenomenal expansion of man's mental life. Just as the tool is an extension of the hand, the word was an extension of the mind. In the striking words of Wells, " Language is the hand of the mind to hold and keep." But it is really something more than that. The hand for all its importance, has after all only a limited function in man's life. The function of man's mind is however all-pervasive. As G. H. Lewes has written in his *Life of Goethe*, " The whole man thinks." We may add similarly that the whole man feels, for feeling and thinking are integral. Likewise, the whole man expresses. Expression and mind have thus gone on mutually augmenting each other. As the eminent anthropologist Dr. Marrett has said " The differentia of man, the quality that marks him off from the other animals, is undoubtedly his power of articulate speech. If language is ultimately the creation of the

intellect, yet hardly less fundamentally is the intellect a creation of language." Once again, this is but a rediscovery of a fundamental truth to which the Veda gave utterance millenniums ago—*vāngme manasi pratishṭhitā, mano me vāci pratishṭhitam*: Speech and mind are centred in each other, and interact for the revelation of the spirit.

The origins of language, like the origin of man himself, are shrouded in obscurity. As between the ape and man, so between their modes of expression, their appears to have been a missing link which has not been discovered. Some authorities like Wundt have held that the search for origins is itself based on the fallacy that man was without speech at some time, for which there is no evidence. Others believe that speech had its origin in primitive man's necessities like food-getting and the instinct for self-protection. Some, including such great names in the field of linguistics as Jespersen, contend that it had its root in man's superfluous activity after his animal needs were satisfied and that it is closely akin to play and song, to art and poetry and courtship. The truth as usual appears to lie somewhere midway between the several hypotheses.

Whatever the origin of speech, it has in the course of the ages divided itself into innumerable languages and dialects—those which survive as well as those which have been lost. For long, the possessors of each language thought with pride that theirs was an autonomous activity and the only original and divine language. This narrow attitude appears to have been

so widespread that it led the great Goethe to protest, "Who knows but his own language, knows none." The discovery of Sanskrit by the West about the beginning of the nineteenth century initiated the scientific study of languages in Europe. Before long, comparative philology became the fashion in many Continental universities. It was a great eye-opener which showed the affinity between the several languages of the Indo-Aryan group. In their first enthusiasm, scholars laid aside parochial patriotisms and hailed Sanskrit as the mother of the Indo-Aryan group of languages. But very soon, conservatism and the deep-rooted feeling about the inherent superiority of the Western races asserted themselves, and Sanskrit was deposed to a humbler place, *viz.*, that of the eldest among the sister languages. Philology also ran into side-lines and excesses and the philological approach came to be associated with fanciful and arbitrary speculations and even became a word of reproach.

In the meantime, the study of language was being approached from another angle by the anthropologists who accepted the newly formulated doctrine of evolution on Darwinian lines. They examined the languages of primitive people through evolutionary spectacles and drew their own conclusions. It was at once obvious that language had been subject to its own course of evolution. They were not slow to recognise that language was undoubtedly the most important among all the instruments of civilization. But they found that by their standards, language

was a very unprogressive instrument, and that the power of words was the most conservative force in the history of life. As one of these investigators has put it, "Tens of thousands of years have elapsed since we shed our tails, but we are still communicating with a medium developed to meet the needs of arboreal man." The modern world is certainly very different from that of primitive man and social life has reached a stage of unprecedented elaboration. It is therefore being urged, and with great plausibility, that language should fall in line and keep pace with it. Language should also be made to shed its tail, as it has failed to do so voluntarily. This plea is receiving support from the analogy of the sciences whose phenomenal growth has led to the ingression into language of a host of new words under the insistent demands of practice and theory. Armed with these vocabularies and novel techniques, science has invaded fresh fields, one amongst which is that of language. No doubt, the phonetic and grammatical aspects of language had been considered from very early times. But the study of language with special reference to meaning and significane, of language as the vehicle of thought is only recently coming into prominence under the name of semantics. Among the pioneers connected with this new form of analysis have to be mentioned the names of Ogden, Richards and many others. A branch of the new science, applied semantics, is attempting to tackle practical questions like language reform, and what is known as Basic English is one

of its first outcomes. Semantics is opening up a very rich and interesting field of study and the highest hopes are being entertained by its exponents regarding its future. It is expected to bring about nothing short of a revolution in thought. Thus Prof. Pear says, "If the discovery of the psychological nature of meaning were completely successful, it might put an end to psychology altogether." In the face of such arresting claims we may well pause to see how far they are justifiable.

Semantics has set out with the purpose of raising the level of communication through a direct study of its conditions, its dangers and its difficulties. In a manner of speaking, it has been concerning itself with the seamy side of language. It has been deeply impressed by Bentham's statement that "Error is never so difficult to be destroyed as when it has its root in language." The illusions created by language are not restricted to the ignorant and the uneducated. It is being more and more realised to what an extent even men of learning and sincerity are at the mercy of forms of speech. Most philosophy and metaphysics are illustrations of this. As Mr. H. G. Wells has said, "The whole of Western thought has been misled by the words *principle* and *quality*." As against this verbomania, semantics wants to substitute a scientific approach. It is convinced that every gain in science was acquired at the expense of some generally accepted piece of metaphysics. It traces the whole trouble to the naive belief that words always correspond in some way to things, an attitude

which semantics condemns as " primitive superstition " and " word magic ". On the other hand, the semantic analysis attempts to show that there is no necessary or unique relation between words and things. Between the two intervenes thought which is causally related to each of these. In the new terminology a " thing " is designated as *referent*, with a view to avoid the popular association of the word with material objects. A " word " is termed a *symbol*, and " thought " which comes in between is called *reference*. The semantic contention is that symbol and reference are not directly related to each other, but only through " reference ". It is conceded that " referent " is essentially an intellectual process and that the language has other functions. These are however given only a subsidiary place and grouped together under the term Emotive. Such in brief is the semantic position.

It is open to the obvious criticism that it tries to introduce into the psychological field the assumptions and methods of mathematics and the physical sciences. But it is now being admitted by the physicists themselves that their methods have a limited application within their own sphere. According to Dr. Whitehead, the progress of biology and psychology has been checked by the uncritical assumption of such half-truths. Language and psychology are bound up together and any consideration of the former without reference to the latter is not only foredoomed to failure but may even cause great harm. If we are to inoculate ourselves against

verbomania, it is first of all necessary, in the words of Goldberg, to understand that " the real trouble lies not in the words but in the psychology behind the words. The word is but a symptom, a symbol, a sign pointing not only to an object or a concept but to a subject and a conceiver." The tendency to treat words as if they were realities has not been the monopoly of metaphysics, but has affected science also all along. Even a glance at the history of words like Matter and Force, Ether, Energy and Evolution is sufficient to show this. For example, examination of the catch-phrase " the survival of the fittest " will make it clear to what extent it has influenced the course of biology. Yet it embodies a verbal fallacy confusing two distinct meanings of the word " fit ". If fit means merely fit to survive, the phrase only suggests that those who survive do actually survive, which is tautologous. If however " fitness " is any indication of value, it is at once obvious that it can have no place whatever in the scientific hypothesis of evolution, and that fitness for biological survival be quite other than fitness meaning deserving to survive. Yet the greatest pains have been devoted to collect evidence in support of the hypothesis whose truth has been accepted as an axiom by most biologists, without even an inkling of the ambiguity on which it rests.

Semantics is showing symptoms of the very disease it seeks to cure, when it hopes to solve the problem of meaning by paraphrasing ordinary language into technical terms like reference and

referent. After stressing that words are not things, it looks as if it has succumbed to the temptation of dealing with words as if they were things, hard and static. The reason for this is its preoccupation with the written word which has a specious appearance of stability. But the central problem of language is the spoken word which is fluid like music and cannot be torn from its concrete context. The meaning of words cannot be decided from on high on *a priori* grounds. Any attempt to do. so on the abstract criteria of conceptual thought is sure to miss the mark. Such thought resembles a mathematical equation from which we get back only what we ourselves have put into it. Mathematics is itself a language devised by human ingenuity for dealing with external nature. It is not the only possible language. The efforts of semantics to reform language on the model of the languages of science and mathematics will drain it of all emotional vitality and creative potency. The sphere of real language is the human psyche. Creative imagination has had more to do with its growth than the intellect. As a great psychologist has put it, speech is a storehouse of images founded on experience. It is as much rooted in the unconscious, both individual and racial, as in the conscious. The poet and artist and seer are more at home in it than the expert. The poet has been very aptly called the word-maker, for all growth in language is in the nature of a voicing forth—an evocation. It is also something inspired and sacred—an invocation. It is intimately connected

with the central life-processes. As Mr. Basil de Selincourt writes, " It is because language is a branch of the tree of life that we can do little either by way of influencing or predicting its future."

For language, the psychic sphere is the region of reality. In this region reign the primordial images and symbols which condition all real thinking. If it should be objected that this is primitive superstition and word-magic, one might reply in the words of Jung, " By what criterion should we judge something to be an illusion? Does there exist for the psyche anything which we may call illusion? What we are pleased to call such may be for the psyche a most important factor of life—something as indispensable as oxygen for the organism—a psychic actuality of prime importance. Presumably the psyche does not trouble about our categories of reality, and it would be therefore the better part of wisdom for us to say: everything that *acts* is actual." It thus looks as if for the psyche a word may be or rather *is* a thing. Except on this supposition, neither experience nor expression can be adequately dealt with. There may after all be something in the naive outlook which is fundamental, and which refuses to be exorcised by the semantic " word-magic " of calling it " primitive superstition ". To use Hindu terminology, a referent may be of a *sūkshma* or psychic nature. In failing to recognize this, semantics is limiting the validity of its analysis to language whose sole function is the description of physical reality —the *sthūla*. Parodying the words of Shakespeare

we may well say, "There are more referents in heaven and earth, Horatio, than are dreamt of in your semantics!" The Hindu scheme shows a better appreciation of the realities of the situation when it calls the thing or object *padārtha*: that which is signified by the *pada*, which stands for word or name, literally a step or stage. *Pada*—the word—is a step to meaning—*artha*—which is itself a referent of a psychic order. In the ultimate analysis, a referent is not other than meaning, for we are immediately aware only of occurrences in the psyche, and even what is called matter is but an inference from these. That is why we have had no hesitation in placing the *sūkshma* before the *sthūla*. In giving priority to the physical over the psychic, semantics is putting the cart before the horse, and showing how tacitly it has adopted the assumptions of physical science.

Enough has been said to suggest that the phenomena of language have a spiritual basis, and that the attitude of antiquity towards them was more profound than the secular and sterilised attitude of modern semantics. Poets and sensitive men of all ages have been keenly aware of this. Thus Walt Whitman exclaims, "All words are spiritual; nothing is more spiritual than words. Whence are they? Along how many thousands and tens of thousands of years have they come?" Even a brief glance backwards shows that for centuries the greater part of mankind believed that the name was sacred and that it was integrally connected with the soul, so much so that it could be substituted for it. We find

from the Pyramid texts that the ancient Egyptians worshipped a god called Khern, *i.e.*, Word: the Word having a personality like that of a man. They held that Creation was due to the interpretation in words by Thoth of the will of the Supreme Deity. Man was believed to have several souls, of which the most important was the eighth, the Name-soul, and they took great pains to prevent its extinction, and ensure its continuation along with the names of the gods.

The ancient Greeks were a people very sensitive to subtle influences, and their outlook was permeated through and through by a recognition of the spirituality of language. Herakleitos, one of their oldest and most famous philosophers, held that words embodied the nature of things. He saw in language the most constant thing in a world of ceaseless change, an expression of that common wisdom which is in all men. For him the structure of human speech reflects the structure of the world. It is an embodiment of that structure—" The *Logos* is contained and in it as one meaning may be contained in many outwardly different symbols. These views were transmitted through the Pythagorean tradition and greatly influenced Plato. But they were not restricted to philosophers alone. Herodotus and Thucydides, the great Greek historians, bear witness to their all-pervasiveness. Herodotus himself refuses to mention the name of Osiris. It is recorded that after the Pelopponesan War the Greeks felt that the verbal machinery had gone out of gear and they were powerless to cope with such a situation. As Thucydides says, "The meaning

of words had no longer the same relation to things but was changed by men as they thought proper". Aeschylus and Sophocles were also believers in the magic power of words.

Plato developed the Herakleitian view of language. His theory of Ideas is nothing more than a doctrine of name-souls, and his Ideal World is where these name-souls dwell. Aristotle too had an extraordinary reverence for words, and even in his logic he is absolutely dependent on the structure of his mother-tongue. As Mauthner has said, "If Aristotle had spoken Chinese or Dacotan, he would have had to adopt an entirely different Logic, or at any rate an entirely different theory of categories". We can only barely refer to another concept which was to influence religious and philosophical thought for centuries to come, *viz.*, the doctrine of the *Logos* which was mentioned in connection with Herakleitos. The word is derived from the verb *legein*, to speak or say. *Logos* is primarily " What is said ", utterance or speech. It soon acquired another meaning "significance " or "reason ". This was greatly developed by the Neo-Platonists and later on taken up by the Stoics, for whom it became *Logos Spermatikos*, the seminal word, or the germinal reason. Christianity also came under the spell of the doctrine.

But the idea of the potency of the name is already to be found in the Old Testament. As Rowell has put it, "The story of creation in the Genesis illustrates with extraordinary vividness the close link between creation and naming, between the thing and the

word. Each act of creation is ratified by the giving of a name, and name follows thing created with an immediacy which almost makes of two acts one; the sequence is reiterated with an accent so strongly marked as to approach the force of necessity. 'And God said : Let there be light : and there was light. And God called the light Day, and the darkness he called Night' and so on. Each thing as it emerges from the surrounding void is, as it were, seized and held fast in place by its name and in and by a name it gains self-possession and articulateness." When we come to the New Testament we find the doctrine of the *Logos* already full-fledged in the fourth Gospel, *Logos* being translated into English as the Word : "In the beginning was the Word. The Word was with God. The Word was God". It is unnecessary for our purpose to pursue further the influence of this doctrine on Christianity. A good instance of the popular belief in the intimate connection between words and reality is, however, to be found in the Christian conception of blasphemy : God is supposed to be personally offended by the desecration of his name. It was considered so grave an offence that even as late as the time of Henry VIII a boy was put to death by burning in England for repeating some idle words which he had chanced to hear respecting the sacrament. It is perhaps as a reaction against former excesses in this direction that the new semantists are so anxious to sterilise the word of its power for they have suffered from it so much. But it is a mistake to suppose that the radiant no longer exists because it

has a shadow side. In the anxiety to get rid of the evil, it looks as if they do not mind losing the good, throwing out the baby also with the old bath-tub.

It is now high time for us to return home after our sojourn in foreign countries. We have already referred to the profound intimations in the Rigveda regarding the origin and function of speech. Some more illustrations will be of interest. There is the Sūkta which begins *aham rudrebhir*, popularly known as the Devī Sūkta in which Speech personified, lauds herself as the support and substratum of all the gods. Another good example is the famous Sūkta commencing—*Brihaspate prathamam vāco*, full of mystic import. It says, the wise reached the path of Speech by sacrifice. When the sages created Speech through wisdom, it was like an act of winnowing barley with a sieve. The Rishis first acquired it and dispersed it in many places. It was essentially an act of naming. The best part of speech is secret and only revealed through affection and sympathy. Thus, "One man, indeed, seeing Speech has not seen her ; another hearing her has not heard her, but to another she delivers her person as a loving wife well-attired presents herself to her husband. One man firmly established in the friendship (of Speech) becomes wise and powerful, but another wanders with an illusion that is barren, bearing Speech that is without fruit and without flower "—*aphalām apushpām.* The philosophic and symbolic interpretations of these utterances are to be found in the Āraṇyakas and Upanishads. The god Agni of the Veda is here identified with the

faculty of speech, which is again described under various symbols, as food, as life, mind, etc. The intimate connection between speech and mind is emphasised and finally the whole universe of experience is depicted as consisting of *nāma* and *rūpa*, the name and the form (of perception). As the Chāndōgya says, the whole relative world of effects owes its very existence to speech: just as all pots and other earthen vessels are only modifications of clay, so is this vast universe nothing but an elaboration of speech—*vācārambhaṇam*.

Gathering up the scattered threads of our thought, we may say that the time-honoured view of the function of speech was based on a perception of the live nexus between speech and mind. Speech was something evolved out of the mind, but which remained as part of it, as its support and backbone. In Hindu terminology mind—*manas*—was protected —*trāyate* or borne up by it. It was *mantra*. This conception has come down along the ages in almost unbroken continuity. Its use as such was embodied in the cultus or sacrifice : Yajna, which enshrined a unique attitude towards the universe. By the universe is meant here not so much the world of physical fact, but rather of what we called *sūkshma* or psychic reality. This was the region of personality or *adhidaiva*, as distinguished from the other which was called *adhibhūta*. As the Gītā says—*purushaśca adhidaivatam*. Contrasted with the variety and discreteness of the physical world, the psychic world was the experience of unity in variety. It was

in the region of the embodied personality that Yajna was effective : *adhiyajnoham evātra dehe.* But even this region was not ultimate for experience. The finality of experience lay in indivisible unity : *aksharam brahma.* This was known as *adhyātma.* In this region speech had no right of entry nor yet mind : *yato vāco nivartante aprāpya manasā saha*, as the Upanishad has it. It was not something manifested by speech but the very cause of the manifestation of speech itself : *yad vācā nabhyuditam, yena vāg abhyudyate.* Hence the ideal of *mouna* or silence for the aspirant who sought this. The whole body of speech, which like a cosmic *Aśvattha* had its root above in Brahma and whose branches had spread in indescribable profusion in the world of man, and was the sound-counterpart of *saṁsāra* or relative existence, had to be dissolved before stark reality could be reached. It was only after this *ūrdhva mūla adhaśśākha asvattha* was cut down that the journey was to be commenced towards the goal from which there was no return. This goal was also described as *pada*, a term which in its earlier reaches, as we saw, stood for " word ". It was the ultimate and supreme Goal, *tad vishṇoḥ paramam padam* !

The Sanskrit language is the repository *par excellence* of all these sacred traditions or *Saṁskāras.* In it are enshrined the highest aspirations and achievements of our race, I should say of the whole human race. It was formed and moulded and perfected to that purpose. Its vitality has conditioned all our thinking through the ages. A study of its

structure is itself a discipline in philosophy. Our philosophy is its outcome, just as Greek philosophy was born from the Greek language. There is a unique individuality in the sphere of languages. As H. G. Wells has said, " No two languages have identically the same general terms and their grammatical structure also gives a preference to this or that method of grouping and correlating words. There is no such thing as exact translation, and so the framework of the mind of an adult Frenchman or German is subtly different from that of an English speaker. Every language and every tradition carries its distinctive tendencies towards this picture of the universe or that." The individuality of the Sanskrit language is our most precious heritage. Its very sounds are fundamental : they are *bīja mantras*. To meddle with them would lead to *varṇa sankara*, than which no greater catastrophe could overtake a culture. It was a boon in disguise that Sanskrit was never much of a spoken language, and at some time in history became stabilised once for all. It is as if its assets were frozen by a kindly Providence at its highest level of realisation. For us it is indeed the *deva bhāshā*, the most exquisite instrument for unlocking the *sūkshma* receptacle of truth and existence. Its reach extends up to the very goal which has no beyond. In its essence it is *śabda brahman* ! Let us cherish this Brahman for evermore. Let there be no rejection. In the solemn words of the Veda : *māham brahma nirākuryām mā mā brahma nirākarōt, anirākaraṇamastu anirākaraṇamastu!*

THE AIM OF EDUCATION*

FOR a layman to address a gathering of teachers is like a patient addressing doctors, or the man in the street lecturing to a body of experts, a reversal of the normal roles. But it is not without its own value and justification. It gives the former, who has suffered as well as benefited largely at the hands of the latter, an opportunity to have his say and thus relieve his feelings. On the other hand, it will give the specialist an idea of how he looks from the other end of the telescope, and serve to remind him gently that he exists for the sake of the layman and not *vice versa*. It is good for the biter to be bit at least once in a way. In the absence of such contacts it is to be feared that each will live in a water-tight compartment much to the disadvantage of both. That is my excuse for venturing to speak to you on the aim of education.

Today more than at any previous time, education is a word of power. The greatest results are expected from it, in fact nothing less than a remaking of society and civilisation. The State as well as the citizen seem to be at one in agreeing that education is the primary obligation of the State and the paramount charge on the public revenues. But it is not commonly realised that, like a variable in mathematics, the word education may have almost any

* An Address delivered before the New Education Fellowship of Mysore in 1941.

content. The aims as well as methods of education have been changing from time to time, especially in recent times, each generation often representing a reaction against the last. Teachers of today seem to be busily engaged in discovering and correcting the mistakes of their predecessors. An uneasy suspicion arises in our minds as to whether the educationists of tomorrow will not similarly have their hands full in rectifying the defects of today. It is sufficient to make us pause and try to put aside all dogmatism and cocksureness in the field of education. We see how necessary it is to clarify at the very outset what is meant by education, before proceeding to generalise. If we can settle this the rest will be comparatively easy.

The first thing to attract our notice is the clamour for mass-education. The phrase has become a slogan with many who believe it to be a panacea for all the ills of the body politic. By mass-education its advocates generally mean the spread of literacy. Literacy is held by them to be a good in itself and identified with knowledge, while illiteracy is equated with ignorance. Thus a Western educationist says (*World Education*—1925) "I have been told that educating illiterates is just like letting them into an unlocked garden, but I said, to me it was more like opening prison doors and letting them out of the dungeon." The same idea is being echoed and even improved upon in India. For example, an enthusiast for literacy propaganda writes in a well-known Indian Journal, "The transition from illiteracy to

literacy is not so much a transition from one level of ignorance to another, as it is a transition from one world to an altogether different world, from a world of superstition and acquiescence to a world of light and independent judgement." Thoughtful men are however far from sharing this easy optimism. The immediate utility of literacy is of course not to be denied. But it is becoming more and more obvious to what an extent literates whose knowledge and judgement are otherwise at a comparatively low level, are at the mercy of mass suggestion by the very fact of their literacy. They unsuspectingly fall a prey to propaganda carried on through the cheap press which permeates every nook and corner of social and cultural life. A nation of literates is like a prepared field in which mass suggestion can bear immediate fruit. The success of the totalitarian countries in dragooning the mind of the populace into believing whatever their leaders want them to believe is a ghastly illustration of misuse of the tool known as literacy. And it would be wrong to suppose that such abuse is the monopoly of dictators. Even in the so-called democratic and free countries the average literate is incessantly subjected to interested propaganda, which is not the less dangerous because it is insidious and often unconscious. Literacy by itself is thus not an unmixed good, but rather an instrument which cuts both ways. In any case it is not to be confused with education. Undoubtedly it is a means to education, but experience has shown that, here as elsewhere, if one stops at the means

it is likely to defeat the end. It would have been superfluous to reiterate so plain a conclusion had it not been for the wide prevalence of the notion that literacy and education are identical. The harmful effects of illiteracy are all on the surface and easy to recognise. But who can gauge the evils arising from the ignorance and lack of balance of the literate? It is no exaggeration to say that war on the modern international scale, or rather the mentality which makes for such war is only made possible by the indiscriminate spread and abuse of literacy. It is like sowing the wind and reaping the whirlwind.

To say that literacy is a means to education is not to admit, as popularly believed, that it is the only means. Words are organised thoughts and the conditions for communication are best when they are in closest touch *en rapport* with the speaker and the hearer. The spoken word has a character and fluidity, reinforced as it is by the voice and gesture and live presence of the speaker, which is wholly absent from the written word. It has also to be remembered that there are experiences which are too high for the spoken word and almost too high for thought itself : *Yato vāco nivartante aprāpya manasā saha.* On the other hand, the written word acquires a specious stability in becoming visible and static. It becomes almost a thing, impersonal and mechanised. This not only does not matter but may even work well when the correspondence between thought and thing is closest, as for example in describing the facts of the inanimate universe

or their abstract relations. But its inadequacy becomes apparent when we come to deal with the phenomena of life, and the more so with the inner world of experience and values which partakes of concreteness and individuality and refuses to be standardised. The trust in literacy as the sole means to education thus leads to the neglect and starving of the higher sides of man's personality, the drawing out of which must be the principal objective of all true education. Information and knowledge get substituted for wisdom whose very existence tends to be lost sight of.

It must have been for this reason that the great civilizations of antiquity depended so much on the spoken tradition. In Greece as well as Egypt, we are told, education was imparted wholly *viva voce*. In our own land, the great Vedic culture has been handed down across the millenniums by word of mouth, in unbroken succession from teacher to pupil. This was not because, as some shallow scholars imagine, writing had not yet been invented. Even after writing had come into vogue, the use of written texts was considered undesirable. The restriction rested on better grounds than the cheap one of keeping learning as a close preserve for the profit of certain privileged classes. What is noteworthy is that knowledge was entirely associated with the sense of hearing, as it is today being associated with the eye. The body of wisdom was called *śruti* —what is heard. Hearing—*śravaṇa*—took the place of reading. One whom we would call a well-read

man was designated *bahuśruta*—one who has heard much. From hearing to thought and from thought to assimilation were the natural stages in the process of education : from *śravaṇa* to *manana* and on to *nididhyāsa*. That was the course of formal and systematic education imparted by *Guru* to *Śishya* either singly or in the manageable groups of a Gurukula. The stress was on the psychological factor, and the relation between teacher and pupil was sought to be made unique, something like the " transference " of modern psycho-analysis. On the side of the pupil were expected discipline, austerity and earnestness—*brahmacarya*, *tapas* and *śraddhā*—and a humility which made for receptivity, and on the other, solicitude and individual attention, and the obligation to impart without reserve the highest wisdom. The setting of the *Praśna Upanishad* serves as a good illustration of this. The aim was not to get hold of some words or formulæ but what lay behind them and constituted at once the personality and wisdom of the teacher. As the *Kauśītaki Brāhmaṇa Upanishad* has it, it was the speaker that was sought to be grasped and not merely his words.

The people at the same time had their own schooling of a less systematic nature. There were ideas floating in the atmosphere, as it were, which they imbibed like the air which is breathed without effort or even awareness. There was the body of folklore conveyed through song and story and play. A word from a man of understanding at the right juncture would also work wonders in a man's mind

and lead to its natural unfolding, where whole curricula of teaching and books would merely be as useless lumber. Thus slowly through the centuries the people acquired a culture which was a national heritage and asset, which could be felt and perceived although not amenable to measurement by statistics. The existence of such a widespread culture in our own country as well as in China and Japan was the first thing to strike fair-minded observers from outside. It would be unscientific not to recognise such phenomena and give them their due weight in any scheme of education. It should not be imagined that such methods were incapable of yielding mass results. The spectacle of the spread of mighty religions like Buddhism, Christianity and Islam proves the contrary. Their true place in the history of civilization would be lost sight of unless it is realised that in their own day they embodied great and successful traditions of culture and education, and signified very much more than what religion has come to mean in the modern secularised world. Once again it looks as if in an unexpected manner the spoken word will regain its place in shaping the public mind for good and ill, as the widespread use of the radio indicates. It looks as if it is going to effect a change as unpredictable as that brought about by the invention of printing five centuries ago.

But when all is said and done, the fact remains that the written word has a function to discharge which, as far as we can see, can never be dispensed with. For it serves not only as a medium of

communication but also to record and preserve the vast body of impersonal knowledge of a scientific order which has been built up during the past two or three centuries and which is growing apace. It is this body of knowledge which is today the chief concern of education. It came into its own when about the third quarter of the nineteenth century the time-honoured scheme of classical education in the European Universities gave place to science. The "humanities" as they were finely called were deposed and relegated to oblivion, as being a mere cult of words and in their place was substituted a cult of things, of things that "mattered". It was a definite reversal of values and a turning back on the view-point which had dominated men's minds in the past and as such it marks the real beginning of the modern epoch. The change may be well described in the Hindu terminology, according to which all experience is due to the interplay of *prakriti* and *purusha*, the play of *prakriti* being for the sake of *purusha*—for *purushārtha*. It is now as if *purusha* exists for the sake of *prakriti* and not *vice versa*, man exists for the sake of science. The object has gained a victory over the subject. What the ancients considered their strong point is now deemed their principal defect. It is significant of the times that even so great a classical scholar as Gilbert Murray quotes with approval the statement of Zeller that the great weakness of all ancient thought, not excepting Socratic thought, was that instead of appealing to objective experiment it appealed to some subjective sense of

fitness. For a time it looked indeed as if the triumphant onward march of the physical sciences and the obvious benefits that resulted, justified the most extraordinary hopes on behalf of the new outlook. But today the elation is considerably tempered, and man is feeling smothered by the weight of the new objects he has discovered or invented. It is as if his spirit is being squeezed out. He is beginning to wonder if he has not set in motion a power he is unable to control, and whether he has not become a slave in the grip of things and mechanisms, while all the time he was cherishing the illusion that he was dominating nature. He is dimly perceiving the truth underlying the Greek myth of King Midas and the golden touch, and the pre-eminently European legend of Faust selling his soul to the Devil. All these things are bound to have their repercussions in the educational field before long. It is not unlikely that the scales may once again be tilted, and science made to occupy a subordinate place in the scheme of general education. When it does happen it will be all for the good.

It will not be out of place here to have a glance at the scientific view of the world which forms the backbone of modern education. The fact that the earth is round and moves round the sun will serve as a good illustration. Now every child is taught this as soon as it enters the portals of the school. Yet few people realise that it is only relatively true, *i.e.*, from the standpoint of an observer on the sun, and that for all ordinary purposes the commonsense

view that the earth is flat is equally valid. It is on this basis that houses are built and people walk about. Even Whittaker's Almanac speaks of the sun as rising and setting. Scientific statements are thus true only with reference to specially situated observers equipped with elaborate instruments. Their truth lies in their relevancy to their particular context, removed from which they have no legitimate bearing. Yet the prevailing tendency is to forget or ignore their background and speak of them as if they are absolute truths. They are allowed to invade man's everyday life on a par with the other facts of common observation, and work havoc by disturbing his sense of perspective. Concepts like those of geological ages, or astronomical distances are in essence mere numbers based on far-fetched calculations. They have nothing to do with time as lived and experienced. Condensed and packed into neat formulæ and introduced into man's interior they act like powerful explosives which blow up his scale of values. The Copernican theory is only one instance of the harm done by taking scientific hypotheses too seriously outside their proper sphere of application. The analogy of this hypothesis has had the disastrous effect of making man believe that the self is no longer a legitimate centre of reference, and that the individual is no more than a satellite revolving round some huge disembodied entity like society or the state. Yet it is indubitably true that each man is the centre of his own world of joy and sorrow, of hope and fear. The larger entities subsist only in

and through him. But strangely, it has become very different to press home this truism. It may safely be said that unless the primacy of the individual is restored, health and sanity will not return to mankind. By this it is not meant that an individual can be a completely self-centred unit independent of larger entities. This is neither possible nor desirable. But the dependence should be recognised as subsisting only through him and for him. Obligation to the environment is entitled to be given its due weight principally because it is the condition precedent of a full life for the individual, because it is *dharma*, the first and foremost ingredient of *purushārtha*. The ideal of *purushārtha* alone can form the bed-rock of wholesome living.

The damage that the scientific outlook has caused is due to the substitution of the abstract mass-man in place of the concrete embodied individual. An impersonal observer who is all eye and measuring instrument *plus* the Euclidean understanding ousts the live, varied and rich personality. The latter is offered up as a sacrifice to the former. This has fostered the growth of corporate and organised but subhuman entities in other spheres also. The sacrifices and the toll of human life demanded by them have thrown into shade the worst excesses of cannibalism or human sacrifice. Yet the illusion created by them is so strong that man has not only submitted to them but even exulted in his own immolation. In the words of the Gītā, this is the triumph of the *āsuri* side of man's nature. Under its power man

embarks on a multiplicity of vain hopes, vain works and vain knowledge without real understanding, and heads for his own ruin:

Moghāśā moghakarmāṇo moghajnānā vicetasāḥ,
Rākshasīm āsurīm caiva prakritīm mōhinīm śritāḥ.

The remedy for it lies in the recognition of the divinity which resides in every embodied individual, which man is only too prone to ignore under the glamour of *āsuri* ideals:

Avajānanti mām mūḍhā mānushīm tanumāśritam,
Param bhāvam ajānanto mama bhūta maheśvaram.

This is the real significance of the ideal of *purushārtha.*

This stress on the person and the development of personality implied in the term *purushārtha* is, I should like to point out, in keeping with the best in European thought. We have the oft-quoted lines of Goethe:

> Folk and serf and conquerer
> These concede in every age :
> The sons of earth find greatest joy
> In personality alone.

They give expression to the view that everyone's ultimate aim and strongest desire is in developing the fulness of human existence that is called personality. Thus in the words of the great psychologist Jung, " 'Education to personality' has become a pedagogical ideal that turns back upon the standardised—the collective and normal—human being. . . . . The yearning for personality has become a real

problem that occupies many minds today." So the problem of education resolves itself into one of personality. Our views regarding man's personality or psyche have received a remarkable extension due to recent advances in the field of psychology. Personality is no longer identified with its conscious aspect which may be called the ego. It was found that a full understanding of human behaviour is impossible unless we take into account certain mental factors which can only be inferred from their effects but cannot be directly observed either by introspection or from behaviour. These factors have been collectively termed the subconscious or unconscious. The credit of first revealing the part played by the unconscious belongs to Freud, whom McDougall compares to Newton. But it looks as if the discovery of the subconscious or submerged portion of man's psyche and of its scope and function is likely to bring about a greater change in man's outlook and ideals than either Newton's Law of Gravitation or Einstein's Theory of Relativity, because it is so much more intimate. It was in the region of psychopathology that the new studies had their birth, and they were closely connected with the investigation of the phenomena of hypnotism and of the symptoms and causes of hysteria. That they had more to do with abnormal psychology than with the healthy human psyche is a fact which has left its mark indelibly on the findings of psycho-analysis. After making allowance for this and for the undue emphasis which each of the several schools into which psycho-analysis

has split up, is inclined to lay on its own special theories, there emerges a body of material which is of the utmost value to all who are interested in education.

Freud demonstrated conclusively that the larger portion of the mental life operates at subconscious levels, as it were below the threshold of consciousness. It constitutes a sort of reservoir of energy which motivates all the instinctive urges. He showed that physical as well as neurotic symptoms could be caused by psychic " mechanisms " centred in this reservoir, and thus established what is known as the psychogenetic principle. Even in normal life the subconscious elements manifest themselves, although in a disguised form, in dreams which are in the nature of fulfilments of repressed wishes. This idea of repression plays a great part in the Freudian psychology. Repression is a process by which disagreeable experiences are relegated to the lumber room of the unconscious where they become " complexes ". Under suitable conditions these complexes give rise to undesirable symptoms which represent the efforts of the repressed elements to rise to the surface in such a manner as will not allow their real nature to be discovered. All these phenomena are not of an intellectual character but have deep-seated emotional bearings. In contradistinction to the old intellectualist psychology which thought of the mind mainly as an instrument for problem solving, the Freudian approach stresses the emotional factor as the mainspring of conduct. From this standpoint

as a modern psychologist has put it, " Psychology is mainly concerned with the emotional maturing of the individual and education becomes largely a question of the wise expression and control of the emotions. Maturing is the socialising of the emotional life, first in relation to intimate groups like the family and then to wider groups. Civilization itself becomes a system for the control of the emotional life as comprehensively, and in nature's scheme more originally, than it is an enterprise of intellectual control of the resources of the environment and the skilful direction of the occupations of men in satisfaction of their needs." According to modern psychology the distinctive abnormal tendencies appear in the normal mind also, although in a restrained form, and are likely to break out under stress or excitement. Some psychologists even go to the length of saying that mankind has a natural predisposition to hysteria and that social menaces like fanaticism or war are in the nature of hysterical excesses. In this view, the problem of civilization lies in reducing the native hysteria of the human race, and the essential aim of education is to provide for emotional stability and control by subduing and directing to desirable ends the innate hysterical trends.

In this summary of the tendencies of Freudian psycho-analysis no reference has been made to controversial details or technique and methods. A comparison with other psycho-analytical schools will however bring out much interesting and useful

matter. For Freud the unconscious is purely an individual affair consisting almost wholly of repressed complexes. But Jung, the most famous among his pupils, holds that the unconscious is not entirely an individual product, but that dream analysis and other evidence go to show that there is indisputably something like a collective and racial unconscious which ingresses into the individual psyche. The motivating power which Freud attributes wholly to sex is generalised by Jung into a concept of psychic energy which he calls the *libido*. Freud's teaching disclosed the darker side of the human psyche and roused a storm of protest and opposition. But Jung believes that it was a regrettable error on Freud's part to believe that the psyche has no radiant side because it has been explained from the shadow side. Freud's central idea of adaptation to environment more or less on the lines of evolutionary biology envisages a conflict between what he calls the " pleasure " principle which dominates the inner world of fantasy on the one hand, and the " reality " principle supposed to originate in the pressure of things and the stern demands of society on the other. Jung however is convinced that human problems cannot all be explained on the mechanical basis of adaptation to an imaginary rigid environment, that the ideal of adaptation is all right for neurotic or unsuccessful people, but that it does not meet the case of gifted individuals to whom the world really owes all its advances. While recognising that there are morbid fantasies, he has a very

high opinion of the role played by fantasy, which he identifies with the spirit of play and the creative imagination. For him it is actually " the maternally creative side of the masculine spirit". In general it may be said that Jung's views are more profound and mark a great advance on Freud, providing a fresh orientation to the human spirit, investing mythology, religious ritual and mystic experiences once again with a deep psychological basis and significance and redeeming man's inner life from the shadow and stigma of unreality and superstition.

What is of special interest to us is the surprising affinity between Jung's conclusions and Hindu thought. He himself is well aware of it. He thinks that it was no mere accident that soon after the French Revolution the Frenchman Anquetil du Perron brought to Europe a translation of the Upanishads " which gave the Western world its first deep insight into the baffling mind of the East". He says, " To the historian this is mere chance without any factors of cause and effect. But in view of my medical experience I cannot take it as an accident. . . . . In the crowds that poured into the Notre Dame, bent on destruction, dark and nameless forces were at work that swept the individual off his feet; these forces worked also upon Anquetil du Perron and provoked an answer which has come down in history. For he brought the Eastern mind to the West, and its influence upon us we cannot measure. Let us beware of underestimating it !" He has a great respect for the Eastern civilisations which had

discovered and learnt to use the resources of the subliminal mind. In his own words, "Great and enduring civilizations like those of the Hindus and the Chinese were built upon this foundation and developed from it a discipline of self-knowledge which they brought to a high pitch of refinement both in philosophy and practice." He adds that Western psychology is only just beginning to advance "to fill the void which hitherto has marked the psychic insufficiency of Western culture as compared with that of the East. We Occidentals had learnt to tame and subject the psyche, but we knew nothing about its methodical development and its functions." It looks as if after the lapse of centuries the West is slowly coming to recognize the Self as the source of all knowledge and power, a realization which is sure to shift the emphasis in education from the outside to the inside. As the Upanishad describes it, the Self is that which being known, all else becomes known. This is the highest *purushārtha—paramārtha.*

In Hindu psychology the collective unconscious was called the *avyakta*, the individual unconscious more or less corresponding to *adrishṭa.* When the Indian mentality characteristically referred to the insufficiency of conscious endeavour and held that the fruits of action depend on *adrishṭa*, it was not so much a weak resignation to fate as a wise acknowledgment of the part played by the unconscious in the affairs of men. *Adrishṭa* was not considered as arbitrary or chaotic in its workings, but as comprising the individual's *vāsanas* or *saṁskāras*, the

subtle relics and memories, the psychic counterparts of all activity and feeling—of motion and emotion. The operation of causation in this field was explained by the doctrine of *karma*, the ultimate and logical expansion of what in its limited application is today called the law of psycho-genesis. We cannot follow these topics into all their fascinating implications. For us the main point of interest is that in the development of personality we have to take into account a whole which far transcends the conscious ego which has hitherto been in the focus of educational practice. Summing up, we may say that the chief concern of education ought to be the building up of personality in its fullest sense and not the mere imparting of information however useful it may be. Information is like food, but personality is like the vitality—*prāṇa*—which assimilates food. Mankind is today suffering from a plethora of food which is beyond its powers of digestion. The aim of education should be to keep the digestion tuned up a little in advance of the food. To this end even fasting and starvation for a time may be beneficial. But wholesale changes in the method and content of education are neither practicable nor necessary. What is wanted is essentially a shift of emphasis in the minds of those who guide the course of education. If only they will remember what the true aim of education ought to be, then the way will be paved for the realisation of *purushārtha* through education.

PHILOSOPHY AND LIVING*

"WHAT is truth, said jesting Pilate, and would not stay for an answer." Bacon's famous commencement of his Essays will serve us indifferently well for a beginning. The gist of the question is really what is philosophy? But Pontius Pilate was not by temperament a philosopher. He was a matter-of-fact man and knew that he would get no answer even if he should wait for two millenniums. That must have been the reason for his impatience. Besides, he was not serious about the answer, for he asked his question only in jest. He had made up his mind in advance that there could possibly be no answer, and he was only having his joke at the expense of the philosophers. He was probably wiser than he knew. The course of philosophy, at least in the West, seems to be a sad commentary on Pilate's attitude and really his justification. For all the advance and certainty attained in other fields of knowledge, philosophy appears to be the one region where there is least agreement or certainty. In this sphere, the doctrine of Progress does not seem to hold sway. Plato still remains the high-water mark of European philosophy. Metaphysics is at present more or less looked down upon by the scientist as well as layman. Thus a well-known scientific writer has said that every gain in physics was at the expense of some

* Inaugural Address delivered before the Philosophical Association of the Maharaja's College, Mysore, in 1941.

accepted piece of metaphysics. While for the average man, metaphysics is but a search by a blind man in a dark room for a black cat which is not there! On the fundamental questions of philosophy: "What is mind?", the answer still seems to be, "no matter"; and "What is matter?"—"never mind".

Philosophy may thus be at bottom a matter of temperament and there may be certain temperaments in which philosophy simply will not grow. As the scholar said to Boswell, "I have tried too in my time to be a philosopher, but I do not know how, cheerfulness was somehow breaking in." The scholar had a practical philosophy which was perhaps better than that spun by the serious professional philosophers. But he knew that his philosophy would not be acknowledged as such by them. So he declined to step into the arena. For Boswell's genial scholar philosophy manifested itself in living, but for a philosophy dealing solely with verbal explanations he did not much care. It must have been the latter which F. H. Bradley had in mind when he characterised philosophy as the finding of bad reasons for what we believe upon instinct. He hastens to add, "But to find those reasons is no less an instinct." One wonders why "bad reasons". He could have said with greater justice, the best possible reasons according to one's own lights. But then Bradley was obviously thinking of other people's reasons and not his own, and was merely saying that his lights differed from theirs. Every man may thus be considered as instinctively harbouring a

philosophy, which he occasionally tries to articulate. Philosophy in the West has been mainly concerned with systematic description and the attempt to explain on rational lines the influences and opinions which have prevailed in society over long periods. It was Plato who first applied the Euclidean understanding to the inner world of experience. His successors, with few exceptions, have been doing the same thing. Every other kind of approach has been open to the danger of being dubbed either mysticism or religion.

The tendency in recent times has been to treat philosophy as having reference not so much to living, as to current views regarding the constitution of the physical universe. The influence of scientific progress on philosophic thinking has been very great. The mere mention of names like those of Copernicus and Darwin, to give only two, is sufficient to indicate the remarkable change which came over men's outlook, amounting almost to a *volte face* when compared with the older modes. Today it looks again as if the phenomenal advances in physics and biology, not to speak of psychology, are going to revolutionise all our thinking. The new physics has done away with the time-honoured conceptions of matter as the familiar old substance, of space and time. The last two have been fused together into a new dimension called space-time and we learn of the possibility, at least mathematically, of worlds in more dimensions than four. The old feeling about the continuity of energy is giving way before the new Quantum Theory. Ether has already been

abandoned, and in place of the etheric waves which were supposed to be the structure of energy we have now mere " waves of probability ", whatever that may mean. To crown all, we have the Principle of Indeterminacy which says that the motion of an electron cannot be observed without disturbing it and that we can experimentally determine either its position or velocity at any instant, but not both. This does away with the old determinism of science, and the much-vaunted laws of nature are now being interpreted as mere statistical averages. The mechanistic-materialistic views which so confidently held the field not so very long ago are already being discarded. Scientists like Eddington and Jeans believe that the ultimate stuff of the universe may be akin to mind-stuff. Their speculations have been described as being on the verge of falling into the abyss of mysticism, the *bete noir* of the orthodox scientist.

From the other side, psychology has steadily gone on extending the scope and function of the human psyche. Advanced thinkers like Dr. Jung believe that there is actually a collective psyche which is objective and common, and which ingresses into the individual psyche, although ordinarily unconscious. He says, " A high regard for the unconscious psyche as a source of knowledge is by no means such a delusion as our Western rationalism likes to suppose. We are inclined to assume that, in the last resort, all knowledge comes from without. Yet today we know for certain that the unconscious contains contents which would mean an immeasurable

increase of knowledge if they could only be made conscious." The affinity between these conclusions and much of ancient Indian thought is very striking. Far from deeming them a danger we ought to welcome them as a belated step in the right direction. These pioneers are themselves aware of this. Thus Jung has in more than one place expressed his admiration for the range and profundity of Eastern thought. Regarding Einstein, a recent distinguished Gifford lecturer exclaims, "How clearly the Orient speaks in this man !. . . . "

Eastern thought never forgot the close connection subsisting between psychology and philosophy : the mind as the stepping stone to ultimate reality. As the Gītā puts it—*buddheḥ paratas tu saḥ.* The aim of philosophy was to grasp that which lay beyond *buddhi* : *evam buddheḥ param buddhvā.* This was the self or *ātman.* Philosophers succeeded in themselves in resolving the original dichotomy of subject and object (*purusha* and *prakriti*) into the indivisible unity of the Self and rested content in that ineffable experience—*ātmanyevātmanā tushṭaḥ.* Philosophy was ultimately based on the statements of those who had succeeded in realising the self, on *śruti* and *āpta vākya.* It was not an appeal to reason or argument, *hetu vāda.* Reasoning and inference were given only subsidiary importance because it was felt at every step that differing but equally plausible conclusions could be drawn from the same set of facts. Hence reasoning was employed only by way of illustration and was recognised as convenient reasoning

or *yukti.* The process of reasoning or inference from known facts was called *anumāna.* Its root meaning is philosophically of the greatest interest and importance. The term signifies that which follows *māna* or measurement. Such *māna* or impersonal measurement has been the basis of physical science, and is in its essence a process of abstraction. It gives a measure of relative knowledge which is comparative and critical. But abstraction destroys for the mind the concrete wholeness of experience. Hence the Upanishad equates the process of measurement with destruction : *miter apīter vā.* Reasoning and language are inextricably bound up together and language itself becomes the principal instrument of abstraction. The view of reality which is given by *māna* and *anumāna* by breaking up its integrity has been called *māyā*, meaning an abstraction in the first instance and from the ultimate standpoint an illusion. The systematic employment of *māna* and *anumāna* has yielded science and philosophy in the West. It is the merit of Indian thought to have recognised the relativity of both.

Whereas in the study of the external world by methods of impersonal measurement and mathematical analysis the self was reduced to the barest minimum and practically deprived of all specific content, in India the process was, so to say, reversed. The attention was all centred on the direct apprehension of the uniqueness of the self, to the almost complete neglect of the external world and its amenities. The stress was entirely on the immediacy

of living known as *bhāva*, felt experience, the relationship of *bhāva* to scientific fact being somewhat like that of Bergson's *duree real* to clock-time. The objective of philosophy was not truth which is a logical relation, but existence itself. It is often forgotten that the word *sat* in Sanskrit does not mean truth but existence. Existence is not other than *bhāva* : as the Gītā puts it succinctly—*nāsato vidyate bhāvo, nābhāvo vidyate sataḥ*. The problem of philosophy was to distinguish *bhāva* from its antithesis. This distinction had to be realised through being, the root *bhu*, from which *bhāva* is derived, meaning "to be". This process was *bhāvanā*, a mode of living understanding. The true philosopher was one who had grasped the essence of *sat* through *bhāvanā*. He was the real *tattvadarśin* and his knowledge was *tattvajnāna*. All the rest was mere verbiage.

Philosophy was thus closely connected with life. To start with, it was a discipline—*sādhanā*—an experimental method. Modern science and civilization owe their very existence to the development of the experimental method. The West has been so much impressed by this that a reputed scientific writer asserts, "The great intellectual division of mankind is not along geographical or racial lines, but between those who understand and practise the experimental method and those who do not understand and do not practise it." But it has been understood and practised in the West hitherto only for taking the measure, as it were, of the physical

world. It is only very lately that the possibility of its application to psychology has been seriously considered. The halting experiments made in the sphere have been mostly restricted to the observation of behaviour objectively under mechanically imposed and recorded conditions. Experimental psychology has been hanging on to the apron strings of the physical sciences. That psychology may require an approach of its own, and that it is in the region of the self alone that any valid psychological experiments can at all be conducted with any hope of profit, is yet far from being realised. The necessity for such methods is only slowly dawning on the minds of a few outstanding thinkers. Thus H. G. Wells, commenting on the popularity of views like those of the Behaviourists which claim to dispense with all introspective methods, observes, "None the less, there is in fact no other method save introspection by which we can study conscious processes as such. All other methods merely deal with the physical facts of behaviour associated with conscious processes. To study the increased production of adrenalin in anger, or the possible alteration of blood-pressure or electrical conductivity during intellectual concentration, is of extreme importance ; but it does not take us any farther in our knowledge of the conscious processes of emotion or reasoning. For the study of these we must continue to rely upon self-observation; so that one of the crying needs of psychology at the moment is for an improved technique of introspection."

Even this admission does not go far enough. The stress is still on a technique, something standardised and mechanical. But the individual personality is the core of the problem in psychology, which is in its essence qualitative and not quantitative. More depends on the personality of the experimenter than on the technique. Or rather, the technique has primarily to be adapted to the limitations as well as the aptitudes of the experimenter, the *sādhaka*. Hindu experimental psychology therefore started with a study of the subtle components of the psychic equipment of the experimenter. These were called *saṁskāras*. These determined what his aptitude or *adhikāra* was. Apart from *saṁskāra* and *adhikāra* there is no possibility of any advance in the region of mind. It is a recognition of this fundamental fact that accounts for the multiplicity of options in method that are permitted in the orthodox systems of mind-control like *yoga*. Thus, after explaining a number of alternative modes of contemplation, the *Yoga Sūtra* sums up comprehensively—*yathā abhimata dhyānādvā*: or by any congenial mode of meditation.

Yoga itself was but one of the methods of *sādhanā*. The whole field of religion and mysticism and even daily life abounds in *sādhanās*. East as well as West, ancient and modern, civilized and barbarous, have all something to show in the shape of *sādhanā*. We may be sure that every system of ritual however crude embodied in itself something of psychological value, something worthy of attention and respectful

consideration at the hands of the psychologist and philosopher. This is not yet realised by the so-called scientific mind. But it was one of the primary axioms of Indian thought. When Sri Krishna says in the Gītā : "By whatever path men may try to reach Me, by that I reveal Myself to them, for all paths are Mine," it is only a paraphrase of the immortal truth of the Veda—*Ekam sad viprā bahudhā vadanti*: Existence is one only, but is capable of being interpreted variously. Not only the Hindu *sādhanās*, but also the mysteries of the ancient religions all the world over, the observances of the Chinese Tao and the Japanese Zen, the ceremonials of the Christian Church, the symbols of the Gnostic philosophy, the practices of the alchemists, all these have a message for us if only we approach them with understanding instead of contempt.

We cannot avoid referring here to so-called supernatural phenomena akin to telepathy and spiritualism which have formed the subject-matter of psychical research in recent times. The opposition direct and indirect which such studies have had to encounter has been stupendous. Yet they have made some headway. Although the results have not been very appreciable, in quantity or quality, owing mainly to a faulty mode of approach, it is beyond doubt that even the modicum of accepted fact is sufficient to give us food for thought. According to our present theory of knowledge they should not occur at all. So, even one proved occurrence is enough to require revision or even abandonment of the whole

theory. As Schopenhauer insisted on long ago, "The phenomena under consideration are incomparably the most important among all the facts presented to us by the whole of experience from a philosophical point of view ; so it is the duty of every man of science to get acquainted with them and to study them thoroughly." Yet as Mr. McNeile Dixon asks (Gifford Lectures, 1937—*The Human Situation*), " How many of them, and how many of our divines are, in respect of this study, like the professor of Padua who refused to look through Galileo's telescope lest he might see what he did not wish to see, who dreaded its revelations ? " He goes on, "But what we prefer, like or dislike, alters nothing in nature. Palatable or unpalatable, we must accept whatever lies in the path of our destiny. And if a tenth, a hundredth part of what competent observers in this field report be true, the castle of our thought may need rebuilding from its foundations. Simple people talk glibly of telepathy, for example ; yet if extra-sensory perception alone were established the whole scheme of modern thought crumbles to ruin. It would be nothing short of a scientific revolution. Science and philosophy would be under the necessity, for them a sad necessity, to seek new concepts for the interpretation of reality, to redraw their antiquated map of the human mind."

We may now revert to the topic of *sādhanā*. The test of a *sādhanā* was not so much whether it looked rational or conformed to any external standard, but whether it delivered the goods, whether it led

to *siddhi* or not. Making every allowance for superstition and quackery and routine observance, there is ample reason to believe that *sādhanā* was fruitful. But *siddhi* was not a uniform experience and varied according to the individual and his objective. We have heard much about tangible *siddhis* like levitation, and occasionally come across experiences in ourselves or others which indicate that such results cannot be ruled out as impossible. In fact these intermediate *siddhis* were all realizable and their name was legion. However, from the standpoint of philosophy or the search for wisdom they were only so many obstacles. They were like the sirens in the story of Ulysses. Unless the seeker had the courage and disinterestedness to spurn them and forge ahead, he would get entangled in their coils and never be able to extricate himself.

The real aim of all *sādhanā* was the attainment of wisdom through *citta śuddhi*—the purification of the mind. It must however be remembered that this purification was not identical with the objective of puritanism or conventional morality. No doubt some kind of restraint and orderliness—*yama* and *niyama*—were necessary, but these were only the beginning and not the end-all and be-all of *sādhanā*. The goal was emotional and intellectual equilibrium—*samatva*—which allowed wisdom to shine forth of itself by making the mind a transparent medium. The vision was called *samadarśana*, a reconcilation and harmonizing of apparent antinomies. It was not to be attained by dissecting experience into the pairs of opposites

like good and evil. For those who were bent on attaining the whole, there was obviously nothing to be gained, in Maeterlinck's words, "in shutting out the world, though it be with walls of righteousness". As the Gītā says, the supreme Being takes no account of good and evil—*nādatte kasya cit pāpam, na caiva sukritam vibhuḥ*. But for those who have succeeded in dispelling the illusion caused by relative knowledge *Jnāna* like the glorious sun reveals the Supreme—*teshām ādityavat jnānam prakāśayati tat param*. It is interesting to note that in a fine series of verses beginning *amānitvam*, *Jnāna* is actually identified with humility, unpretentiousness, abstaining from causing pain, forbearance, uprightness, service to the teacher, steadiness, self-control and so on, and *ajnāna* or ignorance is laconically defined as "whatever is other than this", *ajnānam yad atonyathā*.

Enough has been said to bring out the intimate and necessary connection between wisdom which is the goal of philosophy, and actual living. Some other general considerations may now be touched upon. *Sādhanā* was not a mechanical process. It partook of activity as well as quiescence according as was felt to be appropriate. Experience cannot be manufactured, although fortunately we can draw close to it. Effort and will have something to do with it, but not everything. The will has to play hide-and-seek, functioning and yet prepared to abdicate the moment its presence is likely to prove a nuisance. The ways by which the living experiences could be approached could hardly be called "methods" in

the ordinary sense. The very word has a wooden and deadening effect. The path to realization was anything but a clever trick. It was rather a venture to be undertaken with one's whole being. The besetting vice of humanity has however been the sticking to the body of a method and letting the spirit ooze out. It is the hugging of outworn methods which have ceased to have any meaning or vitality that has brought all *sādhanā* into discredit. There is reason to believe that at one time the great method of *yajna*, for example, became a mere methodology—*karma mimāmsa*—which its exponents the *nānyad astīti vādinaḥ* of the Gītā, flaunted in season and out of season to the exclusion of all else. The teachings of the *Upanishads* as well as of Buddhism seem to have been the natural and healthy reaction against this obscurantist attitude. This tendency towards hypostatization of a method until it becomes a prison for man's spirit has manifested itself variously in history. The scholastic philosophies in Europe as well as in India are instances of the crystallization of methods and the consequent stagnation of the creative imagination. At present we are watching the deification of the scientific method. As Whitehead says, "The obscurantists of any generation are in the main constituted by the greater part of the practitioners of the dominant methodology. Today scientific methods are dominant, and scientists are the obscurantists."

The next point of interest is the relation between language and philosophy. The true function of

language was always felt to be intermediary. It was helpful up to a certain point, but afterwards had to be eliminated. Language gave a symbolic and representative knowledge which was entitled to weight but not to finality. It was a commonplace of our philosophy that the highest experiences were beyond the power of language to express or communicate. Language was no more than the scaffolding necessary for the building of the spirit, but destined from the first to be pulled down in time. So philosophy did not revel in the growth of an endless literature. It was more concerned with the cutting down of words to the barest minimum, until one was left not with libraries but only a few *tattvas*. It was this tendency towards condensation which incidentally accounts for that unique literary form of India—the *sūtras*—knowledge in tabloid form. The number of *tattvas* was not dogmatically laid down, any more than the number of steps in a staircase, and their provisional nature was never lost sight of. It is greatly to the credit of Indian philosophy that there is comparative agreement between the various schools as regards the *tattvas* to start with, and about terms in general, which has greatly contributed to mutual comprehension and solidarity of thought, even when ultimate conclusions differed. The crucial word *tattva* cannot be adequately translated as category, being something qualitatively different and more intimate. Nor are these *tattvas* abstractions like the universals of Western philosophy. The word literally meant "itness" or "thatness"

which was to be appreciated through being. As the *Śvetāśvatara Upanishad* puts it—*tasyābhidhyānād yojanāt tattvabhāvād bhuyaścānte visvamāyā nivrittiḥ*—"by intense meditation on the supreme *tattva*, by the effort to assimilate it and finally by complete identification, one gets over all relative experience". The word *tattva-bhāvād* is noteworthy as bringing out the close connection between *tattva* and *bhāva*, which I should say is the keynote of Indian philosophy—the link between philosophy and living.

A sympathetic understanding of the Indian attitude will also explain away the common charge against Indian philosophical writers that instead of writing original works they spent all their energies in writing commentaries on the works of older writers. This was inevitable because every thinker felt it his first duty to relate his thought to the experience of the great thinkers of the past. It was based on a desire, perhaps only partly conscious, that philosophy ought to present an organic body of thought never severed from its roots. The Hindu thinker was at all times more conscious of indebtedness than of his own originality. His whole life was one prolonged acknowledgement of indebtedness. The idea behind the *panca mahā yajnas* was that of the discharge of spiritual debts. The Hindu thinker was convinced that originality builds only on indebtedness. For that matter, there has been no original author at all in India. The mighty Vyāsa, the archetype of all authors, to whom we owe the Vedas and the Purāṇas, was as his very name indicates only a compiler.

Sūta who transmitted the whole Purāṇic lore stands for a joiner. Śankara, the greatest among Indian philosophers, did not deem it beneath his dignity to be only a commentator at his highest. No wonder that lesser authors have hesitated to claim orginality for themselves. If only we can get over our lately borrowed notions, we shall see that India has in essence lost nothing by the fact that her best thinkers chose to write commentaries instead of setting out on their own. It is only a formal loss, if at all.

Coming back to the topic of language, the philosophic process was one gradual elimination of language. I am afraid modern professional philosophers will not like this, for it means that, like Othello, they will soon find that their occupation is gone. Like the *ūrdhva mūla adhaśśākha aśvattha* of mythology, the tree of language had to be cut down unflinchingly before the next step could be taken. All schools are agreed about this, Hindu as well as Buddhist. Silence was the condition precedent to the higher philosophy--the *parā vidyā*, and the seeker had to become a *muni* or *mouni*, the man of silence *par excellence*. The Indian imagination has been greatly impressed with the fruitful and eloquent silence of the Guru, which has the strange effect of clearing of the doubts of the pupil. As in poetry and music and even in impassioned conversation, the pause and the silence often count for more than the uttered word. The idea was shared by Buddhism also. Thus we have the " Āryan silence " of the *piṭakas*, the appreciation of silence more than eloquence in teachers, and above

all the reference to the famous silences of the Master himself. The ultimate realization was in silence. In the noble words of Rabindranath Tagore, "But there, where spreads the infinite sky for the soul to take her fight in, reigns the stainless white radiance. There is no day nor night, nor form nor colour, and never, never a word ! "

But it will be said, this is mysticism and not philosophy. It must be confessed that the distinction is not easy to maintain, especially in the later stages. Philosophy and mysticism may be compared to the two disciplines which the Gītā refers to, the Sānkhya and the Yoga. The goal to be reached by following either of them is the same, and the two are in essence one :

> *Yat sānkhyaiḥ prāpyate sthānam tad yogair api gamyate*
> *Ekam sānkhyanca yoganca yaḥ paśyati sa paśyati.*

But when we say this, it is not an admission that reason and understanding have nothing to do with it, and that it is an entirely arbitrary emotional experience that we have in view. That is never the case with Indian mysticism, if we can use that word at all. Here the discrimination and understanding have a function to perform till the very end. It is not a mush of emotion, but a sharpening of the *buddhi.* The *ekāgra buddhi* was the key to realization, and the process was primarily called *buddhi yoga.* Even in the penultimate stage of meditation in Patanjali's scheme, the *dharma megha samādhi,* discrimination

did not cease to function; in fact it was the only thing that functioned : *viveka khyāti.* The Yoga thus gives no less prominence to the discriminating reason than do the avowedly rational and philosophical systems of the Sānkhya and the Vedānta.

There has been much misunderstanding regarding the nature of the goal of the philosophic quest as conceived in India, as shown for example by the epithet "quietism". It cannot well be described either as quietism or activism, being a category by itself which includes and transcends both these modes. In our terminology, it lies beyond the three *guṇas*, but is nearest to *sattva* which is qualitatively different from the delusion and inertia of *tamas* on the one hand, and the passion and activity of *rajas* on the other. *Jnāna* is not a homogeneous vacuity, but it comprehends the fivefold experience, being firm and enduring like the earth, fluid, purifying and sustaining, and maintaining its level of equanimity like water, destroying for its possessor—*jnānāgni dagdha sarva karmāṇam*—all the dross of action like a burning fire, vital like the *prāṇa vayu*, and free and unbounded like space itself. It comprehends all these and extends beyond them. Even when quiescent—*Śiva*—on the surface, it hides a dynamic reality—*Śakti*—underneath just as apparently inert matter is made up of electrons incessantly radiating energy. It is not necessarily bound up with any particular mode of experience or way of life. *Samādhi* has thus been described as *sārvabhaumaś cittasya dharmaḥ*—a fundamental function which underlies all planes of the

mental life. It is not necessarily a trance condition but is quite consistent with the active life as the whole teaching of the Gītā goes to show. The active normal life can itself be made the stepping stone to realization—*svakarmaṇā tam abhyarcya siddhim vindati mānavaḥ*. It consorts with life and experience at all levels. There is nothing that can negate its reality. It was not an academic quest or a mere ideal, but one bound up with the innermost core of living, and attainable here and now. It was not merely realizable but was actually realized : *bahavo jnāna tapasā pūtā madbhāvam āgatāḥ*.

The relation between philosophy and living is like that between *Śiva* and *Śakti* who cannot be thought of as separate from each other. They are effective only in union. This combined entity it is that mythology and the needs of worship have pictured as the Divine Mother, as *Śiva-Śaktyaikya-rūpiṇi*. She is philosophy, the primal *vidyā* and Her essence or *svarūpa* is vitality and life *caitanya*, both intimately linked up with the *buddhi* or discriminative understanding. May She enlighten our understanding and vouchsafe to us philosophy in living : *sarva caitanya rūpām tām ādyām vidyām ca dhīmahi buddhim yā naḥ pracodayāt!*

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